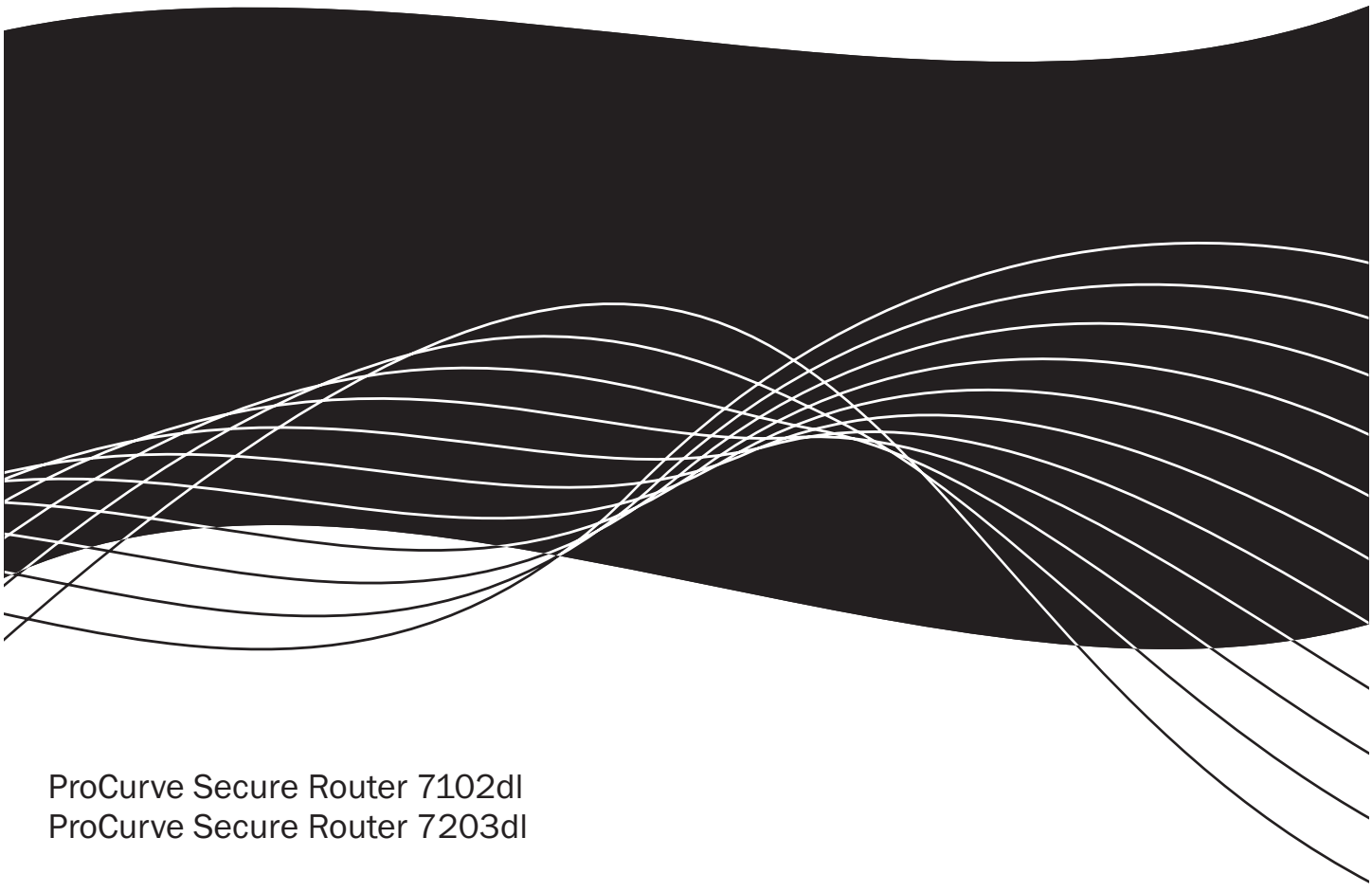
ProCurve Networking
HP Innovation

Installation Guide



ProCurve Secure Router 7102dl
ProCurve Secure Router 7203dl

61195880L1-34E

ProCurve Secure Router
Installation Guide

J8752A	ProCurve Secure Router 7102dl
J8753A	ProCurve Secure Router 7203dl
J8451A	ProCurve Secure Router 1xT1 Interface Module
J8452A	ProCurve Secure Router 1xT1 + DSX-1 Interface Module
J8453A	ProCurve Secure Router 2xT1 Interface Module
J8454A	ProCurve Secure Router 1xE1 Interface Module
J8455A	ProCurve Secure Router 1xE1 + G.703 Interface Module
J8456A	ProCurve Secure Router 2xE1 Interface Module
J8457A	ProCurve Secure Router 2xISDN BRI S/T Interface Module
J8458A	ProCurve Secure Router 1xSerial Interface Module
J8459A	ProCurve Secure Router 1xADSL2+ Annex A Interface Module
J8759A	ProCurve Secure Router 1xADSL2+ Annex B Interface Module
J8460A	ProCurve Secure Router ISDN BRI U Backup Module
J8461A	ProCurve Secure Router ISDN BRI S/T Backup Module
J8462A	ProCurve Secure Router Analog Modem Backup Module
J8463A	ProCurve Secure Router 8xT1/E1 Wide Module
J8471A	ProCurve Secure Router 7100/7200 IPSec Module
J9010A	ProCurve Secure Router 2xISDN BRI U Interface Module
J9011A	ProCurve Secure Router 8xSerial Wide Module
J9026A	ProCurve Secure Router 7100/7200 IPSec Base Module

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1. INTRODUCTION TO THE PROCURVE SECURE ROUTER

This installation guide describes the ProCurve Secure Router, details basic functionality, gives installation instructions, and lists hardware specifications. For more information on router configuration for a specific application, refer to the supplemental documents provided on your *ProCurve SROS Documentation* CD. The router can be managed and configured through the command line interface CLI (accessible via the VT100 (**Console** connection) or Telnet) or through the Graphical User Interface (GUI), using a Web browser. These two methods are described in the Quick Start Guide provided with your router. For detailed information on the CLI, refer to the *SROS Command Line Interface Reference Guide*, also on the CD. The GUI is contains integrated help and various wizards to facilitate configuration. The **Console** port is enabled by default, with no configured password.

The ProCurve Secure Router is a mid-range IP router designed for medium- to large-office connectivity over Frame Relay or point-to-point (PPP) networks. This modular platform offers a complete solution for access routing and WAN connectivity in a single, compact package. The main base units support a variety of interchangeable interface modules and backup modules. The ProCurve Secure Router base units include the following:

ProCurve Secure Router 7102dl

- 1U-high housing, rack-mountable, metal enclosure
- Two module (card) slots
- Two built-in Ethernet ports
- **Console** port
- **Encryption Module** slot
- **Compact Flash** slot

ProCurve Secure Router 7203dl

- 1U-high housing, rack-mountable, metal enclosure
- Three module (card) slots (two small, one wide)
- Two built-in Ethernet ports
- **Console** port
- **Encryption Module** slot
- **Compact Flash** slot
- Redundant power supply (RPS) option

The interface modules in this series provide the following WAN connectivity options:

- T1/FT1
- T1/FT1 + DSX-1
- Dual T1
- E1/FE1
- E1/FE1 + G.703 Drop
- Dual E1/FE1
- Dual ISDN BRI (U and S/T)
- Serial (V.35/X.21)
- ADSL (Annex A and Annex B)
- Octal Serial Wide Module
- Octal T1/E1 Wide Module (no external CSU/DSU needed)

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If needed, an ISDN BRI U Backup Module, ISDN BRI S/T Backup Module, or Analog Modem Backup Module can plug onto any narrow interface module, providing backup capability. Refer to *Installing Interface and Backup Modules* on page 38 for more details.

For VPN applications using the ProCurve Secure Router, the optional 7100/7200 IPSec Module and 7100/7200 IPSec Base Module provide or activate encryption/decryption and security services. Refer to *Installing the Encryption Module* on page 40. The installation of the optional encryption module enables the software features associated with the VPN services.

Features

The ProCurve Secure Routers have the following features:

- Modular network interface via module (card) slots
- 1U-high metal chassis with two or three slots for option modules
- Two integrated 10/100BaseT Ethernet ports (RJ-45 with auto-MDIX)
- Layer 2 WAN Protocol: Frame Relay, Multilink Frame Relay, PPP, Multilink PPP, HDLC
- Integrated IP router with bridging
- RIP Versions 1 and 2, OSPF, and BGP
- IP encapsulation over Frame Relay (RFC1490)
- Secure Router Operating System (SROS) Command Line Interface (CLI)
- SNMP management
- Web GUI
- Integrated EIA-232 DTE configuration port (DB-9)
- Optional backup modules available
- Optional 7100/7200 IPSec Module and 7100/7200 IPSec Base Module provide encryption/decryption and security services
- Front panel LEDs
- Mountable in a 19-inch rack
- Worldwide auto-ranging AC power supply

Specifications

The ProCurve Secure Routers have the following specifications:

Physical

	ProCurve Secure Router 7102dl	ProCurve Secure Router 7203dl
Width	44.25 cm (17.42 in)	44.25 cm (17.42 in)
Depth	29.26 cm (11.52 in)	29.26 cm (11.52 in)
Height	4.39 cm (1.73 in)	4.39 cm (1.73 in)
Weight	4.66 kg (10.26 lbs)	4.98 kg (10.95 lbs)

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Electrical

	ProCurve Secure Router 7102dl	ProCurve Secure Router 7203dl
AC Voltage	100 to 127/200 to 240 volts	100 to 127/200 to 240 volts
Maximum Current	0.4 A/0.2 A	0.8 A/0.4 A
Frequency Range	50 to 60 Hz	50 to 60 Hz

Environmental

	ProCurve Secure Router 7102dl	ProCurve Secure Router 7203dl
Operating Temperature	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)
Non-Operating Temperature	-20°C to 70°C (-4°F to 158°F)	-20°C to 70°C (-4°F to 158°F)
Relative Humidity (noncondensing)	Up to 95 percent at 30°C (86°F)	Up to 95 percent at 30°C (86°F)
Non-Operating Relative Humidity (noncondensing)	Up to 95 percent at 30°C (86°F)	Up to 95 percent at 30°C (86°F)
Maximum Altitude	3.05 km (10,000 ft)	3.05 km (10,000 ft)

Unpack and Inspect the System

Each ProCurve Secure Router unit is shipped in its own cardboard shipping carton. Open each carton carefully, and avoid deep penetration into the carton with sharp objects.

After unpacking the unit, inspect it for possible shipping damage. If the equipment has been damaged in transit, immediately file a claim with the carrier and contact your local HP representative or reseller.

Contents of Shipments

ProCurve Secure Router 7000dl (7102dl and 7203dl)

Shipments of the ProCurve Secure Router 7000dl include the following items:

- ProCurve Secure Router 7000dl base unit
- Racking hardware
- *ProCurve SROS Documentation* CD
- Installation Guide
- *Quick Start Guide*
- Software License, Warranty, and Support documentation
- Console cable, power cord

ProCurve Secure Router dl 1xT1 Module

Shipments of the 1xT1 Module include the following items:

- 1xT1 Interface Module
- *Quick Start Guide*
- 15-foot RJ-45 to RJ-45 cable

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ProCurve Secure Router dl 1xT1 + DSX-1 Module
Shipments of the 1xT1 + DSX-1 Module include the following items:

- 1xT1 + DSX-1 Interface Module
- *Quick Start Guide*
- 15-foot RJ-45 to RJ-45 cable

ProCurve Secure Router dl 2xT1 Module
Shipments of the 2xT1 Module include the following items:

- 2xT1 Interface Module
- *Quick Start Guide*
- Two 15-foot RJ-45 to RJ-45 cables

ProCurve Secure Router dl 1xE1 Module
Shipments of the 1xE1 Module include the following items:

- 1xE1 Interface Module
- *Quick Start Guide*
- 15-foot RJ-45 to RJ-45 cable

ProCurve Secure Router dl 1xE1 + G.703 Module
Shipments of the 1xE1 + G.703 Module include the following items:

- 1xE1 + G.703 Interface Module
- *Quick Start Guide*
- 15-foot RJ-45 to RJ-45 cable

ProCurve Secure Router dl 2xE1 Module
Shipments of the 2xE1 Module include the following items:

- 2xE1 Interface Module
- *Quick Start Guide*
- Two 15-foot RJ-45 to RJ-45 cables

ProCurve Secure Router dl 2xISDN BRI S/T Module
Shipments of the 2xISDN BRI S/T Module include the following items:

- 2xISDN BRI Interface Module
- *Quick Start Guide*
- 7-foot RJ-45 to RJ-11 cable

ProCurve Secure Router dl 2xISDN BRI U Module
Shipments of the 2xISDN BRI U Module include the following items:

- 2xISDN BRI U Interface Module
- *Quick Start Guide*
- 7-foot RJ-45 to RJ-11 cable

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ProCurve Secure Router dl 1xSerial Module
Shipments of the 1xSerial Module include the following items:

- 1xSerial Interface Module
- *Quick Start Guide*

Note *Cables for the 1xSerial module must be ordered separately: V.35 DTE (J8757A) or X.21 DTE (J8755A).*

ProCurve Secure Router dl 1xADSL2+ Annex A Module
Shipments of the 1xADSL2+ Annex A Module include the following items:

- 1xADSL2+ Annex A Interface Module
- *Quick Start Guide*
- 7-foot RJ-11 to RJ-11 cable

ProCurve Secure Router dl 1xADSL2+ Annex B Module
Shipments of the 1xADSL2+ Annex B Module include the following items:

- 1xADSL2+ Annex B Interface Module
- *Quick Start Guide*
- 7-foot RJ-11 to RJ-45 cable

ProCurve Secure Router dl ISDN BRI U Backup Module
Shipments of the ISDN BRI U Backup Module include the following items:

- ISDN BRI U Backup Module
- *Quick Start Guide*
- 7-foot RJ-11 to RJ-45 cable

ProCurve Secure Router dl ISDN BRI S/T Backup Module
Shipments of the ISDN BRI S/T Backup Module include the following items:

- ISDN BRI S/T Backup Module
- *Quick Start Guide*
- 7-foot RJ-11 to RJ-45 cable

ProCurve Secure Router dl Analog Modem Backup Module
Shipments of the Analog Modem Backup Module include the following items:

- Analog Modem Backup Module
- *Quick Start Guide*
- 7-foot RJ-11 to RJ-45 cable

ProCurve Secure Router dl Wide 8xT1/E1 Wide Module
Shipments of the 8xT1/E1 Wide Module include the following items:

- 8xT1/E1 Wide Interface Module
- *Quick Start Guide*
- Eight 15-foot RJ-45 to RJ-45 cables

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ProCurve Secure Router dl 8xSerial Wide Module

Shipments of the 8xSerial Wide Module include the following items:

- 8xSerial Wide Interface Module
- *Quick Start Guide*

Note *Cables for the 8xSerial Wide Module must be ordered separately: V.35 DTE (J8757A) or X.21 DTE (J8755A).*

ProCurve Secure Router dl 7100/7200 IPSec Module

Shipments of the 7100/7200 IPSec Module include the following items:

- 7100/7200 IPSec Module
- *Quick Start Guide*

ProCurve Secure Router dl 7100/7200 IPSec Base Module

Shipments of the 7100/7200 IPSec Base Module include the following items:

- 7100/7200 IPSec Base Module
- *Quick Start Guide*

Caution *Option modules are to be serviced by qualified service personnel only.*

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2. PHYSICAL DESCRIPTION

Reviewing the Front Panel Design

Figure 1 shows the ProCurve Secure Router 7102dl front panel. Figure 2 shows the ProCurve Secure Router 7203dl front panel. The pictures show the chassis with modules installed.

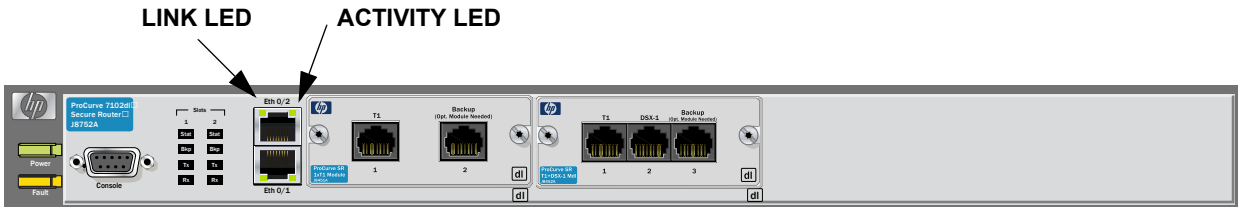

Figure 1. ProCurve Secure Router 7102dl Front Panel Layout

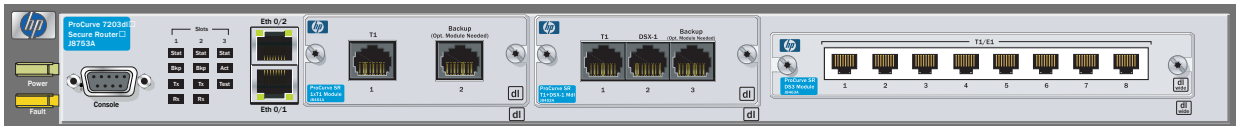

Figure 2. ProCurve Secure Router 7203dl Front Panel Layout

Front Panel Switches, Interfaces, and LEDs

Table 1 describes the front panel LEDs.

Table 1. ProCurve Secure Router LEDs

LED	Color	Indicates that…
Power	Off	The AC power input is off. **Fault** LED flashes slowly if RPS backup power is on.
	Green (flashing)	Unit is powering up. On power-up, the **Power** LED flashes if self-test fails.
	Green (solid)	Power is on and self-test passed.
Fault	Off	Operation is normal.
	Orange (flashing)	A fault condition exists: One or more cooling fans have failed. AC power is not being received or internal primary AC/DC converter has failed. One or more option modules have failed.
Slot 1/Slot 2 - Stat	Off	No interface module is installed, or interface is administratively down.
	Green (solid)	Link is up and everything is operational.
	Red (solid)	Current alarm condition is present on the WAN interface, or there is a self-test failure. The LED illuminates if an interface is configured and in the “no shutdown” condition, but a valid physical network connection has not yet been established.
	Yellow (solid)	Unit is in test.

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Table 1. ProCurve Secure Router LEDs *(Continued)*

LED	Color	Indicates that…
Slot 1/Slot 2 - Bkp	Off	No backup module is installed.
	Green (solid)	Backup module is ready. For the ISDN BRI backup module, green solid indicates that the negotiation with the switch is complete.
	Green (flashing)	Backup is active.
	Red (solid)	An alarm condition is occurring on the backup interface, or there is a self-test failure. An interface is configured and in the “no shutdown” condition, but a valid physical network connection has not yet been established.
	Yellow (solid)	Unit is in test.
Slot 1/Slot 2 - Tx/ Rx	Off	There is no activity on the WAN or backup interface.
	Green (flashing)	There is activity on the WAN or backup interface.
Slot 3 - Stat (7203dl only)	Off	Module is not installed.
	Green (solid)	Module is recognized by the system.
	Red (solid)	An alarm condition is occurring on the module interface.
Slot 3 - Act (7203dl only)	Off	There is no data activity on the module.
	Green (flashing)	There is data activity on the module.
Slot 3 - Test (7203dl only)	Off	Module is not in test.
	Yellow (solid)	Module is in test mode.
ETH 0/1 - Link	Off	10/100BaseT Ethernet connection is inactive.
	Green (solid)	10/100BaseT Ethernet connection is active.
ETH 0/2 - Activity	Off	No Tx or Rx data is present.
	Yellow (flashing)	Tx or Rx data is present.

Console Interface

The **Console** interface is an EIA-232 serial port (DTE) which provides for local management and configuration (via a DB-9 female connector). Table A-1 on page 43 shows the **Console** port pinouts.

Note *Connection directly to an external modem requires a straight-through cable.*

10/100BaseT Ethernet Interface and Activity LEDs

The Ethernet ports (**Eth 0/1, Eth 0/2**) are RJ-45 connectors with LEDs. The yellow activity LED flashes when data traffic is being sent or received on the Ethernet port. The green link LED is on when the router has a good connection to the LAN. Refer to Table A-2 on page 43 for the Ethernet port pinouts. The Ethernet port provides the following:

- 10BaseT or 100BaseT with a single connector
- Auto-negotiation
- CSMA/CD
- IEEE 802.3 compatibility
- Auto-MDIX

Module Card Slots

The module card slots support various network plug-in cards. These card options are described in the section *Option Modules* on page 18.

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Reviewing the Rear Panel Design

Figure 3 shows the ProCurve Secure Router 7102dl rear panel. Figure 4 shows the ProCurve Secure Router 7203dl rear panel.

Figure 3. ProCurve Secure Router 7102dl Rear Panel Layout

Figure 4. ProCurve Secure Router 7203dl Rear Panel Layout

Rear Panel Interfaces

Encryption Module Slot

This slot supports the 7100/7200 IPSec Module (part number J8471A) and the 7100/7200 IPSec Base Module (J9026A). These modules are designed to be used in the ProCurve Secure Router to activate encryption/decryption and security services.

The 7100/7200 IPSec Module (J8471A) provides the following security services to the host processor: DES, triple-DES(3DES), AES, SHA-1, MD5, and random number generation. Performance metrics include 528 Mbps (DES), 176 Mbps (3DES), and 422 Mbps (AES). The power consumption of the card does not exceed 2 watts. See *Installing the Encryption Module* on page 40 for installation instructions.

The 7100/7200 IPSec Base Module (J9026A) activate software encryption/decryption and security services for IPSec VPNs. The card activates the following software security services in the host processor: DES, triple-DES (3DES), AES, SHA-1, MD5, and random number generation.The power consumption of the card does not exceed 1 watt. See *Installing the Encryption Module* on page 40 for installation instructions.

Compact Flash Slot

This slot supports any Type 1 CompactFlash® card (16 MB to 1GB). See *Installing a CompactFlash® Card* on page 40.

Redundant Power Supply (RPS) Input

This input supports a backup power supply for the unit with the use of the ProCurve 600 Redundant and External Power Supply (J8168A). See *Supplying Redundant Power to the Unit* on page 41.

Power Supply

The ProCurve Secure Router has a worldwide auto-ranging AC power supply with an IEC connector. The appropriate three-prong cable is included in the shipment. Please refer to *Supplying Power to the Unit* on page 41 for connection details.

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3. OPTION MODULES

Note *ProCurve Secure Router option modules are not hot-swappable. Disconnect power from the base unit before installing or removing modules.*

The ProCurve Secure Router accepts several option modules designed to meet a variety of networking requirements. The option modules are of three types: plug-in interface modules, plug-on backup modules, and wide modules.

Interface modules are cards which plug directly into the option module slots located on the front of the base unit. These cards provide the following types of interfaces:

- *1xT1 Interface Module* on page 19
- *1xT1 + DSX-1 Interface Module* on page 20
- *2xT1 Interface Module* on page 21
- *1xE1 Interface Module* on page 22
- *1xE1 + G.703 Drop and Insert Interface Module* on page 23
- *2xE1 Interface Module* on page 24
- *1xSerial Interface Module* on page 25
- *1xADSL2+ Annex A Interface Module* on page 26
- *1xADSL2+ Annex B Interface Module* on page 27
- *2xISDN BRI S/T Interface Module* on page 28
- *2xISDN BRI U Interface Module* on page 29

Wide modules are cards which plug directly into the wide module slot located on the front of the base unit. Two wide modules are available for use with the ProCurve Secure Router 7203dl:

- *8xT1/E1 Wide Module* on page 30
- *8xSerial Wide Module* on page 32

Backup modules are plug-on cards which plug directly on to the interface module prior to installation into the base unit. A backup module must be plugged on to an interface module in order for the backup port on the interface module to be active. The ProCurve Secure Router supports three different backup modules (only two can be installed simultaneously):

- *ISDN BRI U Backup Module* on page 33
- *ISDN S/T Backup Module* on page 34
- *Analog Modem Backup Module* on page 35

This section describes each module, providing individual card specifications and features. Refer to *Connector Pin Definitions* on page 43 for pinout information. *Installing Interface and Backup Modules* on page 38 provides information on card installation.

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Interface Modules

1xT1 Interface Module

The 1xT1 Interface Module (see Figure 5) provides a T1 (full T1 or fractional T1) WAN interface for the ProCurve Secure Router. Refer to Table A-3 on page 44 for the T1 connector pinouts, and refer to Table A-12 on page 47 for the backup connector pinouts. An optional backup module is required for backup applications.

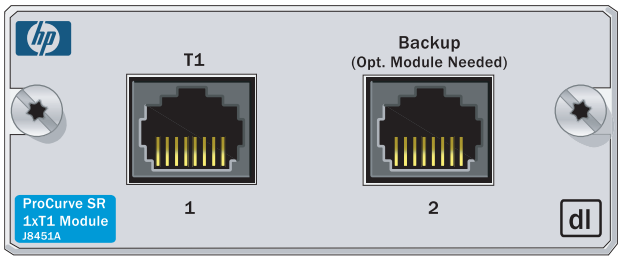

Figure 5. 1xT1 Interface Module

Features and Specifications

Operating Modes

- T1/FT1 Frame Relay/Multilink Frame Relay
- T1/FT1 PPP/Multilink PPP
- T1/FT1 HDLC

T1/FT1 Interface

- Supported Standards: AT&T TR 62411, AT&T TR 54016, ANSI T1.403, Bellcore TR 194
- Line Rate: 1.544 Mbps ±75 bps
- Line Code: AMI or B8ZS
- Framing: D4 (SF) or ESF
- FT1 Line Rate: DS0 channelized
- Input Signal: 0 to -36 dB (DS1)
- Line Build-Out: 0, -7.5, -15, -22.5 dB (long) or 0 to 655 feet (short)
- Connector: RJ-48C
- DS0 Assignment: Programmable

Clock Source

- Network
- Internal

Physical

- Dimensions: 6.99 cm (2.75 in) W x 10.80 cm (4.25 in) D

Diagnostics

- Test Pattern Generation and Detection: 511, QRSS, all ones, all zeros
- Network loopbacks (local and remote); responds to both inband and FDL loop codes
- Alarm generation and detection
- Network and user sets of performance data (15 minutes and 24 hours)

Compliance

- ACTA/FCC Part 68, IC CS-03
- UL/CUL 60950, IEC 60950
- EMC - see *Electromagnetic Compatibility (EMC) Table* on page 62

Environmental

- Operating Temperature: 0°C to 50°C (32°F to 122°F)
- Non-Operating Temperature: -20°C to 70°C (-4°F to 158°F)
- Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Non-Operating Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Altitude: Up to 3.05 km (10,000 ft)

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1xT1 + DSX-1 Interface Module

The 1xT1 + DSX-1 Interface Module (see Figure 6) provides a full T1 or fractional T1 network interface and a DSX-1 interface. Refer to Table A-3 on page 44 for the T1 connector pinouts, Table A-5 on page 44 for the DSX-1 connector pinouts, and Table A-12 on page 47 for the backup connector pinouts. An optional backup module is required for backup applications.

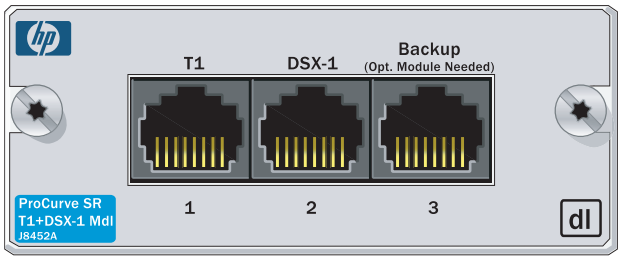

Figure 6. 1xT1 + DSX-1 Interface Module

Features and Specifications

Operating Modes

- T1/FT1 Frame Relay/Multilink Frame Relay
- T1/FT1 PPP/Multilink PPP
- T1/FT1 HDLC

T1/FT1 Interface

- Supported Standards: AT&T TR 62411, AT&T TR 54016, Bellcore TR 194, ANSI T1.403
- Line Rate: 1.544 Mbps ±75 bps
- Line Code: AMI or B8ZS
- Framing: D4 (SF) or ESF
- FT1 Line Rate: DS0 channelized (multiples of 56/64 kbps)
- Input Signal: 0 to -36 dB (DS1)
- Line Build-Out: 0, -7.5, -15, -22.5 dB (long) or 0 to 655 feet (short)
- Connector: RJ-48C
- DS0 Assignment: Programmable

DSX-1 Interface

- Line Interface: DSX-1 per ANSI T1.102
- DSX Receiver Input Range: -10 dBdsx to +6 dBdsx
- Line Rate: 1.544 Mbps
- Capacity: 1 to 24 DS0s
- Line Codes: AMI, B8ZS
- Framing: D4 (SF) or ESF
- Line Length: 0 to 655 feet and -7.5 dB
- Connector: RJ-48C
- DSX-1 interface to PBX

Clock Source

- Network
- Internal
- Through

Physical

- Dimensions: 6.99 cm (2.75 in) W x 10.80 cm (4.25 in) D

Diagnostics

- Test Pattern Generation and Detection: 511, QRSS, all ones, all zeros
- Network loopbacks (local and remote); responds to both inband and FDL loop codes (T1 interface only)
- Alarm generation and detection
- Network and user sets of performance data (15 minutes and 24 hours)

Compliance

- ACTA/FCC Part 68, IC CS-03
- UL/CUL 60950, IEC 60950
- EMC - see *Electromagnetic Compatibility (EMC) Table* on page 62

Environmental

- Operating Temperature: 0°C to 50°C (32°F to 122°F)
- Non-Operating Temperature: -20°C to 70°C (-4°F to 158°F)
- Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Non-Operating Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Altitude: Up to 3.05 km (10,000 ft)

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2xT1 Interface Module

The 2xT1 Interface Module (see Figure 7) provides two T1 interfaces for the ProCurve Secure Router. The module provides up to 1.544 Mbps on each network interface. Refer to Table A-3 on page 44 for the pinouts. Refer to Table A-12 on page 47 for the backup connector pinouts. An optional backup module is required for backup applications.

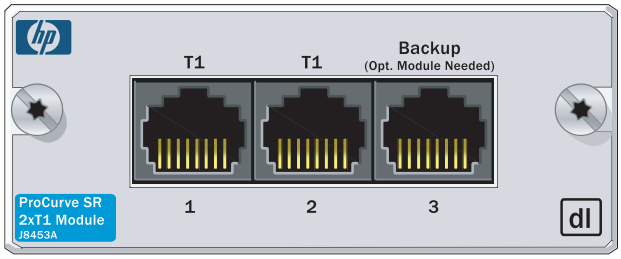

Figure 7. 2xT1 Interface Module

Features and Specifications

Operating Modes

- T1/ FT1 Frame Relay/Multilink Frame Relay
- T1/FT1 PPP/Multilink PPP
- T1/FT1 HDLC

T1 Interface

- Supported Standards: AT&T TR 62411, AT&T TR 54016, Bellcore TR 194, ANSI T1.403
- Line Rate: 1.544 Mbps ±75 bps
- Line Code: AMI or B8ZS
- Framing: D4 (SF) or ESF
- FT1 Line Rate: DS0 channelized
- Input Signal: 0 to -36 dB (DS1)
- Line Build-Out: 0, -7.5, -15, -22.5 dB
- Connector: RJ-48C
- DS0 Assignment: Programmable

Clock Source

- Network
- Internal
- Through

Physical

- Dimensions: 6.99 cm (2.75 in) W x 10.80 cm (4.25 in) D

Diagnostics

- Test Pattern Generation and Detection: QRSS, 511, 2^{15}-1, 2^{20}-1, all ones, all zeros
- Network loopbacks (local and remote); responds to both inband and FDL loop codes (T1 interface only)
- Alarm generation and detection
- Network performance data (15 minutes and 24 hours)

Compliance

- ACTA/FCC Part 68, IC CS-03
- UL/CUL 60950, IEC 60950
- EMC - refer to *Electromagnetic Compatibility (EMC) Table* on page 62.

Environmental

- Operating Temperature: 0°C to 50°C (32°F to 122°F)
- Non-Operating Temperature: -20°C to 70°C (-4°F to 158°F)
- Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Non-Operating Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Altitude: Up to 3.05 km (10,000 ft)

Note *The 2xT1 module supports a single clock source for both T1 interfaces. Changing the clock source on one T1 interface automatically affects the configuration of the other T1 interface. For example, setting the clock to* **line** *on the first T1 configures the clock source of the second T1 as* **through**.

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1xE1 Interface Module

The 1xE1 Interface Module (see Figure 8) provides an E1 interface for the ProCurve Secure Router meeting the requirements of ITU-T G.703/G.704. The module provides a single 2.048 Mbps network interface. Refer to Table A-4 on page 44 for the pinouts. Refer to Table A-12 on page 47 for the backup connector pinouts. An optional backup module is required for backup applications.

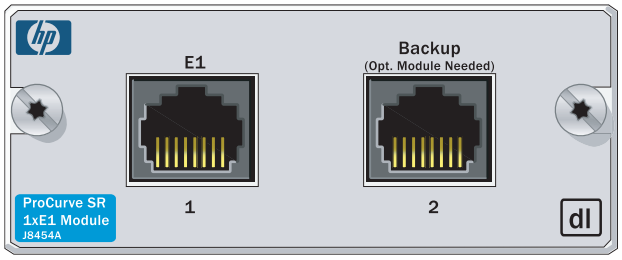

Figure 8. 1xE1 Interface Module

Features and Specifications

Operating Modes

- E1/ FE1 Frame Relay/Multilink Frame Relay
- E1/FE1 PPP/Multilink PPP
- E1/FE1 HDLC

E1 Interface

- Supported Standards: ITU-T G.703, ITU-T G.704 (CRC-4), ITU-T G.797, ITU-T G.823
- Line Rate: 2.048 Mbps ±50 PPM
- Line Code: AMI or HDB3
- Framing: FAS with optional CRC-4
- FE1 Line Rate: Channelized timeslot (in multiples of 56/64 kbps)
- Receiver Sensitivity: -30 dB
- Connector: RJ-48C

Clock Source

- Network
- Internal

Diagnostics

- Test Pattern Generation and Detection: QRSS, 511, all ones, all zeros
- Network loopbacks
- Alarm generation and detection
- Network performance data (15 minutes and 24 hours)

Compliance

- ACIF S016, ETSI TBR 12/TBR 13
- EN 60950, IEC 60950, AS/NZS 60950
- EMC - see *Electromagnetic Compatibility (EMC) Table* on page 62

Environmental

- Operating Temperature: 0°C to 50°C (32°F to 122°F)
- Non-Operating Temperature: -20°C to 70°C (-4°F to 158°F)
- Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Non-Operating Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Altitude: Up to 3.05 km (10,000 ft)

Physical

- Dimensions: 6.99 cm (2.75 in) W x 10.80 cm (4.25 in) D

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1xE1 + G.703 Drop and Insert Interface Module

The 1xE1 + G.703 Drop and Insert Interface Module (see Figure 9) provides a single E1 interface (2.043 Mbps) with user-selectable TS0 assignment and a G.703 drop port which may be used to drop and insert traffic to an E1 PBX. Refer to Table A-4 on page 44 for the E1 pinouts. Refer to Table A-6 on page 45 for the G.703 pinouts. Refer to Table A-12 on page 47 for the backup connector pinouts. An optional backup module is required for backup applications.

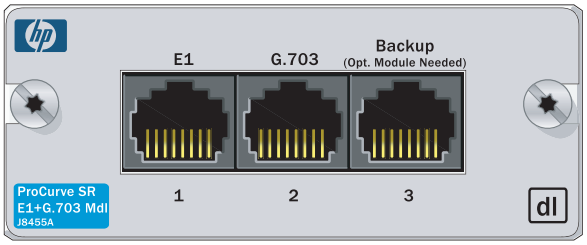

Figure 9. 1xE1 + G.703 Drop and Insert Interface Module

Features and Specifications

Operating Modes

- E1/ FE1 Frame Relay/Multilink Frame Relay
- E1/FE1 PPP/Multilink PPP
- E1/FE1 HDLC

E1 Interface

- Supported Standards: ITU-T G.703, ITU-T G.704 (CRC-4), ITU-T G.797, ITU-T G.823
- Line Rate: 2.048 Mbps ±50 PPM
- Line Code: AMI or HDB3
- Framing: FAS with optional CRC-4
- FE1 Line Rate: Channelized timeslot (in multiples of 56/64 kbps)
- Receiver Sensitivity: -30 dB
- Connector: RJ-48C

G.703 Interface

- Line Interface: Per ITU-T G.703
- Line Rate: 2.048 Mbps ± 50 PPM
- Line Code: AMI or HDB3
- Framing: FAS with optional CRC-4
- Capacity: 1 to 31 timeslots
- Receiver Sensitivity: -30 dB
- Connector: RJ-48C

Clock Source

- Network
- Internal
- Through

Diagnostics

- Test Pattern Generation and Detection: QRSS, 511, all ones, all zeros
- Network loopbacks
- Alarm generation and detection
- Network performance data (15 minutes and 24 hours)

Compliance

- ACIF S016, ETSI TBR 12/TBR 13
- EN 60950, AS/NZS 60950
- EMC - see *Electromagnetic Compatibility (EMC) Table* on page 62

Environmental

- Operating temperature: 0°C to 50°C (32°F to 122°F)
- Non-Operating Temperature: -20°C to 70°C (-4°F to 158°F)
- Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Non-Operating Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Altitude: Up to 3.05 km (10,000 ft)

Physical

- Dimensions: 6.99 cm (2.75 in) W x 10.80 cm (4.25 in) D

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2xE1 Interface Module

The 2xE1 Interface Module (see Figure 10) provides two E1 interfaces for the ProCurve Secure Router meeting the requirements of ITU-T G.703/G.704. The module provides up to 2.048 Mbps on each network interface. Refer to Table A-4 on page 44 for the pinouts. Refer to Table A-12 on page 47 for the backup connector pinouts. An optional backup module is required for backup applications.

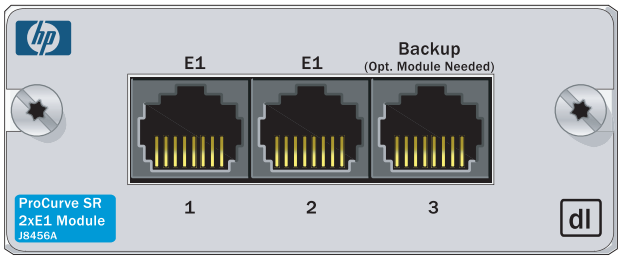

Figure 10. 2xE1 Interface Module

Features and Specifications

Operating Modes

- E1/FE1 Frame Relay/Multilink Frame Relay
- E1/FE1 PPP/Multilink PPP
- E1/FE1 HDLS

E1 Interface

- Supported Standards: ITU-T G.703, ITU-T G.704 (CRC-4), ITU-T G.797, ITU-T G.823
- Line Rate: 2.048 Mbps ±50 PPM
- Line Code: AMI or HDB3
- Framing: FAS with optional CRC-4
- FE1 Line Rate: Channelized timeslot (in multiples of 56/64 kbps)
- Receiver Sensitivity: -30 dB
- Connector: RJ-48C

Diagnostics

- Test Pattern Generation and Detection: QRSS, 2^{15} - 1, all ones, all zeros
- Network loopbacks
- Alarm generation and detection
- Network performance data (15 minutes and 24 hours)

Clock Source

- Network, internal, and through

Compliance

- ACIF S016, ETSI TBR 12/TBR 13
- EN 60950, IEC 60950, AS/NZS 60950
- EMC - see *Electromagnetic Compatibility (EMC) Table* on page 62

Environmental

- Operating Temperature: 0°C to 50°C (32°F to 122°F)
- Non-Operating Temperature: -20°C to 70°C (-4°F to 158°F)
- Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Non-Operating Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Altitude: Up to 3.05 km (10,000 ft)

Physical

- Dimensions: 6.99 cm (2.75 in) W x 10.80 cm (4.25 in) D

Note *The 2xE1 module supports a single clock source for both E1 interfaces. Changing the clock source on one E1 interface automatically affects the configuration of the other E1 interface. For example, setting the clock to* **line** *on the first E1 configures the clock source of the second E1 as* **through**.

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1xSerial Interface Module

The 1xSerial Interface Module (see Figure 11) is user-configurable to be either a V.35 or an X.21 (V.11) interface. This module supports rates up to a maximum of 10 Mbps. An additional V.35 or X.21 cable is required (see *Note*, below). Refer to Table A-7 on page 45 for the Serial connector pinouts, and to Table A-12 on page 47 for the backup connector pinouts. An optional backup module is required for backup applications.

Caution *Cable length for the Serial Interface Module should not exceed 25 feet.*

Note *Cables for the Serial module must be ordered separately: V.35 DTE (J8757A) or X.21 DTE (J8755A).*

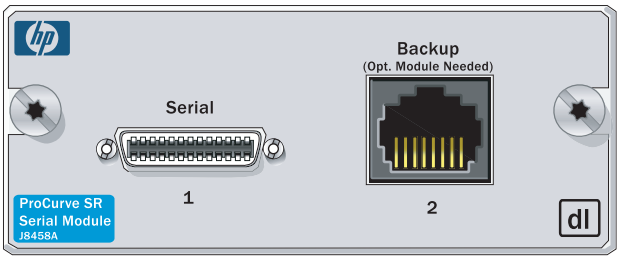

Figure 11. 1xSerial Interface Module

Features and Specifications

Operating Mode

- Frame Relay/Multilink Frame Relay
- PPP/Multilink PPP
- HDLC

Serial Interface

- DTE only; no internal clock provided
- Supported Standards: ISO 4903 (X.21) CCITT V.35 Synchronous (V.35)
- Provides V.35 or X.21 (V.11) electrical interface
- 26-pin smart serial (DTE) connector

Optional Cables

- V.35 DTE (J8757A)
- X.21 DTE (J8755A)

Physical

- Dimensions: 6.99 cm (2.75 in) W x 10.80 cm (4.25 in) D

Compliance

- ETSI TBR 1, ETSI TBR 2
- EN 60950, UL/CUL 60950, AS/NZS 60950, IEC 60950
- EMC - see *Electromagnetic Compatibility (EMC) Table* on page 62

Environmental

- Operating Temperature: 0°C to 50°C (32°F to 122°F)
- Non-Operating Temperature: -20°C to 70°C (-4°F to 158°F)
- Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Non-Operating Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Altitude: Up to 3.05 km (10,000 ft)

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1xADSL2+ Annex A Interface Module

The 1xADSL2+ Annex A Interface Module (see Figure 12) adds ADSL capability to the ProCurve Secure Router. Performance information is provided below. Refer to Table A-8 on page 46 for the pinouts. Refer to Table A-12 on page 47 for the backup connector pinouts. An optional backup module is required for backup applications.

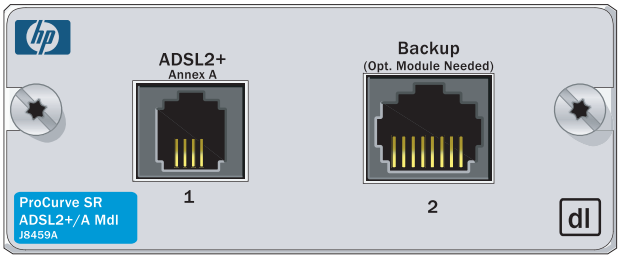

Figure 12. 1xADSL2+ Annex A Interface Module

Features and Specifications

ADSL Interface

- ADSL over POTS, Annex A
- Supported Standards:
  - ITU G.992.1 – Annex A (G.dmt)
  - ITU G.992.2 – Annex A (G.lite)
  - ITU G.992.3 – Annex A ADSL2 (G.dmt.bis)
  - ITU G.992.3 – Annex L READSL2
  - ITU G.992.5 – Annex A ADSL2+
  - ANSI T1.413 Issue 2
- Connector: RJ-11 (6-pin jack, inner pair)

ATM

- Multiple Protocol over AAL5 (RFC2684)
- ATM Forum UNI 3.1/4.0 PVC
- Up to 16 Virtual Circuits
- ATM Class of Service (UBR)
- PPP over ATM (RFC2364)
- PPP over Ethernet (RFC2516)
- ATM F5 OAM

Compliance

- ACTA/FCC Part 68, IC CS-03, AS/ASIF S043, AS/ACIF S002
- EN 60950, IEC 60950, UL/CUL 60950, AS/NZS 60950
- EMC - see *Electromagnetic Compatibility (EMC) Table* on page 62

ADSL1 Performance

- Max = 8 Mbps downstream and 800 kbps upstream
- Min = 224 kbps downstream and 32 kbps upstream

ADSL2 Performance

- Max = ~12 Mbps downstream and ~1 Mbps upstream
- Min = 224 kbps downstream and 32 kbps upstream

ADSL2+ Performance*

- Max = ~24.5 Mbps downstream and up to 2 Mbps upstream
- Min = 224 kbps downstream and 32 kbps upstream

*ADSL2+ support is planned in a future software update.

Environmental

- Operating temperature: 0°C to 50°C (32°F to 122°F)
- Non-Operating Temperature: -20°C to 70°C (-4°F to 158°F)
- Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Non-Operating Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Altitude: Up to 3.05 km (10,000 ft)

Physical

- Dimensions: 6.99 cm (2.75 in) W x 10.80 cm (4.25 in) D

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1xADSL2+ Annex B Interface Module

The 1xADSL2+ Annex B Interface Module (see Figure 13) adds ADSL capability to the ProCurve Secure Router. Performance information is provided below. Refer to Table A-9 on page 46 for the pinouts. Refer to Table A-12 on page 47 for the backup connector pinouts. An optional backup module is required for backup applications.

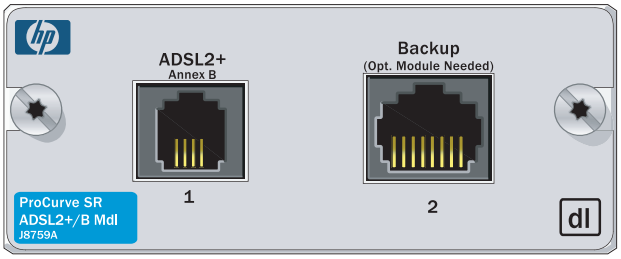

Figure 13. 1xADSL2+ Annex B Interface Module

Features and Specifications

ADSL Interface

- ADSL over ISDN, Annex B
- Supported Standards:
  - ITU G.992.1 – Annex B (G.dmt)
- RJ-11C (6-pin jack, inner pair)

ATM

- Multiple Protocol over AAL5 (RFC2684)
- ATM Forum UNI 3.1/4.0 PVC
- Up to 16 Virtual Circuits
- ATM Class of Service (UBR)
- PPP over ATM (RFC2364)
- PPP over Ethernet (RFC2516)
- ATM F5 OAM

Compliance

- EN 60950, IEC 60950
- EMC - see *Electromagnetic Compatibility (EMC) Table* on page 62

Physical

- Dimensions: 6.99 cm (2.75 in) W x 10.80 cm (4.25 in) D

ADSL1 Performance

- Max = 8 Mbps downstream and 800 kbps upstream
- Min = 224 kbps downstream and 32 kbps upstream

ADSL2 Performance

- Max = ~12 Mbps downstream and ~1 Mbps upstream
- Min = 224 kbps downstream and 32 kbps upstream

ADSL2+ Performance*

- Max = ~24.5 Mbps downstream and up to 2 Mbps upstream
- Min = 224 kbps downstream and 32 kbps upstream

*ADSL2+ support is planned in a future software update.

Environmental

- Operating temperature: 0°C to 50°C (32°F to 122°F)
- Non-Operating Temperature: -20°C to 70°C (-4°F to 158°F)
- Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Non-Operating Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Altitude: Up to 3.05 km (10,000 ft)

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2xISDN BRI S/T Interface Module

The 2xISDN BRI S/T Interface Module (see Figure 14) adds BRI ISDN (with S/T interface) capability to the ProCurve Secure Router. Refer to Table A-10 on page 46 for the pinouts. Refer to Table A-12 on page 47 for the backup connector pinouts. An optional backup module is required for backup applications.

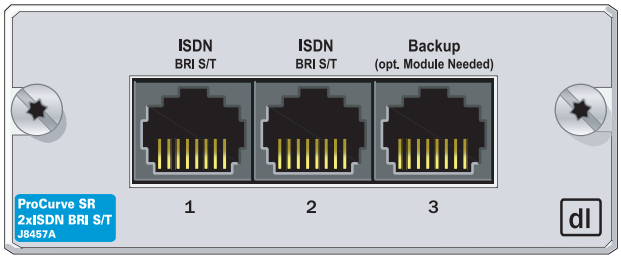

Figure 14. 2xISDN BRI S/T Interface Module

Features and Specifications

Operating Mode

- Independent TE mode of operation for each interface

Features

- Line Rate: Network support for 128 kbps (2 B channels per interface)
- Switch Compatibility: Euro-ISDN
- Test Capability: Local and network loopbacks

Compliance

- EN 60950, IEC 60950
- EMC - see *Electromagnetic Compatibility (EMC) Table* on page 62

Physical

- Dimensions: 6.99 cm (2.75 in) W x 10.80 cm (4.25 in) D

Environmental

- Operating temperature: 0°C to 50°C (32°F to 122°F)
- Non-Operating Temperature: -20°C to 70°C (-4°F to 158°F)
- Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Non-Operating Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Altitude: Up to 3.05 km (10,000 ft)

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2xISDN BRI U Interface Module

The 2xISDN BRI U Interface Module (see Figure 15) adds ISDN BRI (with U interface) capability to the ProCurve Secure Router. Refer to Table A-11 on page 46 for the pinouts. Refer to Table A-12 on page 47 for the backup connector pinouts. An optional backup module is required for backup applications.

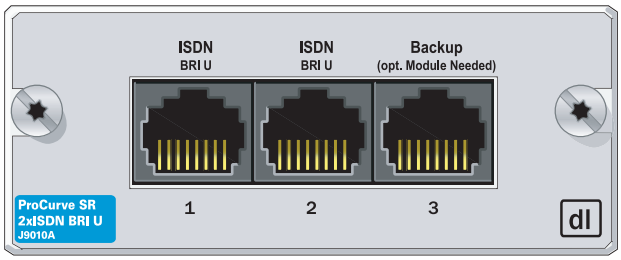

Figure 15. 2xISDN BRI U Interface Module

Features and Specifications

Operating Mode

- Independent TE mode of operation for each interface

Features

- Line Rate: Network support for 128 kbps (2 B channels per interface)
- Switch Compatibility: Euro-ISDN
- Test Capability: Local and network loopbacks

Compliance

- EN 60950, IEC 60950
- EMC - see *Electromagnetic Compatibility (EMC) Table* on page 62

Physical

- Dimensions: 6.99 cm (2.75 in) W x 10.80 cm (4.25 in) D

Environmental

- Operating temperature: 0°C to 50°C (32°F to 122°F)
- Non-Operating Temperature: -20°C to 70°C (-4°F to 158°F)
- Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Non-Operating Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Altitude: Up to 3.05 km (10,000 ft)

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8xT1/E1 Wide Module

The 8xT1/E1 Wide Module (see Figure 16) provides eight T1/E1 WAN interfaces. Refer to Table A-3 on page 44 for the T1 interface pinouts. Refer to Table A-4 on page 44 for the E1 interface pinouts.

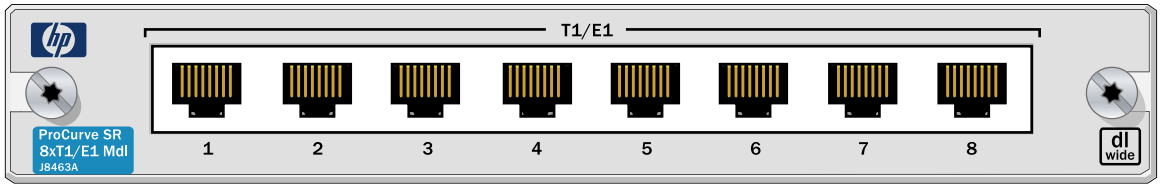

Figure 16. 8xT1/E1 Wide Module

Features and Specifications

Operating Modes

- T1/FT1 Frame Relay/Multilink Frame Relay
- T1/FT1 PPP/Multilink PPP
- T1/FT1 HDLC
- E1/FE1 Frame Relay/Multilink Frame Relay
- E1/FE1 PPP/Multilink PPP
- E1/FE1 HDLC

Note *A dip-switch on the circuit board selects either T1 or E1 operation. All 8 ports are either T1 or E1. The default is T1. See* ***T1/E1 Mode Dip-Switch*** *on page 40 for more information.*

8xT1 Interfaces

- Supported Standards: AT&T TR 62411, AT&T TR 54016, ANSI T1.403, Bellcore TR 194
- Line Rate: 1.544 Mbps ±75 bps
- Line Code: AMI or B8ZS
- Framing: D4 (SF) or ESF
- FT1 Line Rate: DS0 Channelized
- Input Signal: 0 to -36 dB (DS1); Support for Nx64 on all T1 interfaces
- Line Build-Out: 0, -7.5, -15, -22.5 dB
- Connector: RJ-48C

8xE1 Interfaces

- Supported Standards: ITU-T G.703, ITU-T G.704 (CRC-4), ITU-T G.823, ITU-T G.797
- Line Rate: 2.048 Mbps ±50 PPM
- Line Code: AMI or HDB3
- Framing: FAS/NFAS with optional CRC-4
- FE1 Line Rate: Channelized timeslot
- Input Signal: 0 to -30 dB (DS1) on all E1 interfaces (1 through 8)
- Connector: RJ-48C

Clock Source

- Network, internal

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Diagnostics

- Network Loopbacks: Line, payload, remote
- Test Pattern Generation and Detection: QRSS, 2^{15} - 1, 511, all ones, all zeros

Compliance

- ACIF S016, ETSI TBR 12/TBR 13, ACTA/FCC Part 68, IC CS-03
- UL/CUL 60950, EN 60950, IEC 60950, AS/NZS 60950
- EMC - see *Electromagnetic Compatibility (EMC) Table* on page 62.

Environmental

- Operating Temperature: 0°C to 50°C (32°F to 122°F)
- Non-Operating Temperature: -20°C to 70°C (-4°F to 158°F)
- Relative Humidity: 95 percent noncondensing at 30°C (86°F)
- Non-Operating Relative Humidity: 95 percent noncondensing at 30°C (86°F)
- Altitude: Up to 3.05 km (10,000 ft)

Physical

- 14.29 cm (5.63 in) W x 21.91 cm (8.63 in) D

Note *No external CSU/DSU is needed with the T1/FT1 or E1/FE1 interface.*

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8xSerial Wide Module

The 8xSerial Wide Module (see Figure 17) provides eight serial interfaces. Refer to Table A-7 on page 45 for the serial interface pinouts.

Note *Cable length for the 8xSerial Wide Module should not exceed 25 feet.*

Note *Cables for the 8xSerial Wide Module must be ordered separately: V.35 DTE (J8757A) or X.21 (V.11) DTE (J8755A).*

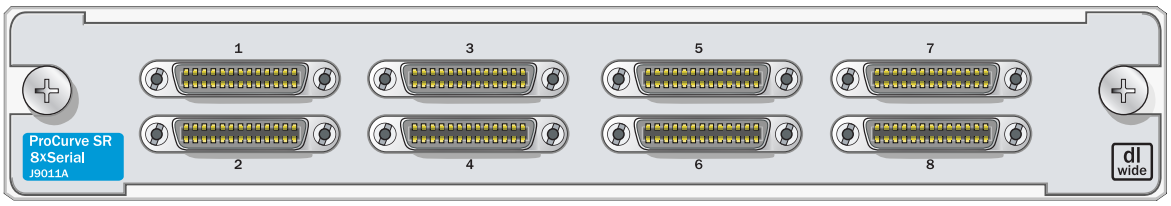

Figure 17. 8xSerial Wide Module

Features and Specifications

Operating Modes

- Frame Relay/Multilink Frame Relay
- PPP/Multilink PPP
- HDLC

8xSerial Interfaces

- DTE operation only; no internal clock provided
- Clocking up to 10 Mbps for each interface
- Supported Standards: ISO 4903 (X.21), CCITT V.35 Synchronous (V.35)
- Provides eight V.35 of X.21 (V.11) electrical interfaces; additional adapter cables are available for purchase to provide the V.35 DTE (J8757A) and X.21 DTE (J8755A) interfaces
- Connector: 25-pin smart serial (DTE) connector

Compliance

- ETSI TBR 1, ETSI TBR 2
  EN 60950, UL/CUL 60950, AS/NZS 60950, IEC 60950
- EMC - see *Electromagnetic Compatibility (EMC) Table* on page 62.

Environmental

- Operating Temperature: 0°C to 50°C (32°F to 122°F)
- Non-Operating Temperature: -20°C to 70°C (-4°F to 158°F)
- Relative Humidity: 95 percent noncondensing at 30°C (86°F)
- Non-Operating Relative Humidity: 95 percent noncondensing at 30°C (86°F)
- Altitude: Up to 3.05 km (10,000 ft)

Physical

- 14.29 cm (5.63 in) W x 21.91 cm (8.63 in) D

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Backup Modules

ISDN BRI U Backup Module

The ISDN BRI U Backup Module provides backup access to the public switched telephone network (PSTN) via Basic Rate ISDN for the ProCurve Secure Router. This backup module is a plug-on module that connects to the interface module. For installation instructions, see *Installing Interface and Backup Modules* on page 38. Refer to Table A-12 on page 47 for backup connector pinouts.

Features and Specifications

Features

- Clear Channel and Bonding Mode 1 call protocols
- Network support for 64 kbps (1 B-channel)
- D-channel switch compatibility with AT&T 5ESS, Northern Telecom DMS-100, and National ISDN-1
- V.54 network loopback support

Compliance

- ACTA/FCC Part 68, IC CS-03, UL/CUL 60950
- EMC - see *Electromagnetic Compatibility (EMC) Table* on page 62

Environmental

- Operating Temperature: 0°C to 50°C (32°F to 122°F)
- Non-Operating Temperature: -20°C to 70°C (-4°F to 158°F)
- Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Non-Operating Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Altitude: Up to 3.05 km (10,000 ft)

Physical

- Dimensions: 6.35 cm (2.5 in) W x 9.53 cm (3.75 in) D

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ISDN S/T Backup Module

The ISDN S/T Backup Module provides backup access to the public switched telephone network (PSTN) via Basic Rate ISDN for the ProCurve Secure Router. This backup module is a plug-on module that connects to the interface module. For installation instructions, see *Installing Interface and Backup Modules* on page 38. Refer to Table A-13 on page 47 for backup connector pinouts.

Features and Specifications

Features

- Clear Channel and Bonding Mode 1 call protocols
- Network support for 64 kbps (1 B-channel)
- D-channel switch compatibility with AT&T 5ESS, Northern Telecom DMS-100, National ISDN-1, and Euro-ISDN
- V.54 network loopback support

Compliance

- ACIF S031, ETSI TBR 3
- AS/NZS 60950, EN 60950
- EMC - see *Electromagnetic Compatibility (EMC) Table* on page 62

Environmental

- Operating Temperature: 0°C to 50°C (32°F to 122°F)
- Non-Operating Temperature: -20°C to 70°C (-4°F to 158°F)
- Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Non-Operating Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Altitude: Up to 3.05 km (10,000 ft)

Physical

- Dimensions: 6.35 cm (2.5 in) W x 9.53 cm (3.75 in) D

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Analog Modem Backup Module

The Analog Modem Backup Module provides a modem with data rates up to 33.6 kbps for the ProCurve Secure Router. This backup module is a plug-on card that connects to the interface module. For installation instructions, see *Installing Interface and Backup Modules* on page 38. Refer to Table A-12 on page 47 for backup connector pinouts.

Features and Specifications

Features

- ITU V.90 compliant
- Async

Compliance

- ETSI TBR 21, IC CS-03, ACTA/FCC Part 68
- UL/CUL 60950, AS/NZS 60950, IEC 60950, EN 60950
- EMC - see *Electromagnetic Compatibility (EMC) Table* on page 62

Environmental

- Operating Temperature: 0°C to 50°C (32°F to 122°F)
- Non-Operating Temperature: -20°C to 70°C (-4°F to 158°F)
- Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Non-Operating Relative Humidity: Up to 95 percent noncondensing at 30°C (86°F)
- Altitude: Up to 3.05 km (10,000 ft)

Physical

- Dimensions: 6.35 cm (2.5 in) W x 9.53 cm (3.75 in) D

Note *The Analog Modem Backup Module can be used in two different modes:*

1. Backup interface for a primary connection.

2. ***Console*** *port for remote dial-in access.*

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4. UNIT INSTALLATION

The instructions and guidelines provided in this section cover hardware installation topics such as rack mounting the unit and installing option cards. These instructions are presented as follows:

- *Mounting Options* on page 37
- *Grounding Requirements Statement* on page 38
- *Installing Interface and Backup Modules* on page 38
- *Installing the Encryption Module* on page 40
- *Installing a CompactFlash® Card* on page 40
- *T1/E1 Mode Dip-Switch* on page 40
- *Supplying Power to the Unit* on page 41
- *Supplying Redundant Power to the Unit* on page 41

For information on router configuration for a specific application, refer to the quick configuration documents provided on your *ProCurve SROS Documentation* CD. For details on the command line interface, refer to the *SROS Command Line Interface Reference Guide* (also included on your CD).

Warning *To prevent electrical shock, do not install equipment in a wet location or during an electrical storm.*

Caution *Electronic modules can be damaged by static electrical discharge. Before handling modules, wear an antistatic discharge wrist strap to prevent damage to electrical components. Place modules in antistatic packing material when transporting or storing. When working with modules, always place them on an approved antistatic mat that is electrically grounded.*

Tools Required

The following customer-provided tools are required for the hardware installation of the ProCurve Secure Router:

- Ethernet cable
- Network cable (module dependent)
- DSX-1 cable (1xT1 + DSX-1 module only)
- G.703 cable (1xE1 + G.703 module only)
- Backup cable (backup functions require an optional backup module)
- Flat-blade or Torx T-10 screwdriver

Note *To access the command line interface (CLI) of the ProCurve Secure Router, you will also need a VT100 terminal or PC with terminal emulation software and a* ***CONSOLE*** *port cable. Instructions on how to access the CLI are given in the Quick Start Guide shipped with your router and in the* ***SROS Command Line Interface Reference Guide*** *(provided on the* ***ProCurve SROS Documentation*** *CD).*

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Mounting Options

The ProCurve Secure Router may be installed in a tabletop or 19-inch rackmount configuration. The following section provides step-by-step instructions for rack mounting.

Rack Mounting ProCurve Secure Router

The ProCurve Secure Router is housed in a 1U-high, rack-mountable chassis which can be installed in 19-inch equipment racks. Follow these steps to mount the ProCurve Secure Router in a rack:

Instructions for Rack Mounting the ProCurve Secure Router	
1	Position the ProCurve Secure Router in a stationary equipment rack. This unit occupies 1U of space. To allow proper grounding, scrape the paint from the rack around the mounting holes where the ProCurve Secure Router will be positioned. See the section *Grounding the Router*.
2	Using the rack mounting hardware supplied with your router, have an assistant hold the unit in position as you install two mounting bolts through the unit's brackets and into the equipment rack.
3	Proceed to the steps given in *Grounding the Router* (below) and in *Supplying Power to the Unit* on page 41.

Caution *Be careful not to compromise the stability of the equipment mounting rack when installing this product.*

Grounding the Router

Note *The supplemental equipment grounding terminal is located on the rear panel of the ProCurve Secure Router.*

Follow these steps to ground the ProCurve Secure Router:

Instructions for Grounding the ProCurve Secure Router	
1	Strip one end of the ground wire to the length required for the ring terminal. (Ground wire and ring terminal are supplied by the user.)
2	Crimp the ground wire to the ring terminal, using a crimp tool of the appropriate size.
3	Attach the ring terminal to the chassis as shown in Figure 18 on page 38. A 6/32 x 1/4 inch screw and a washer are provided next to the AC inlet receptacle for connection to a reliable ground.
4	Connect the other end of the ground wire to a suitable grounding point at your site.

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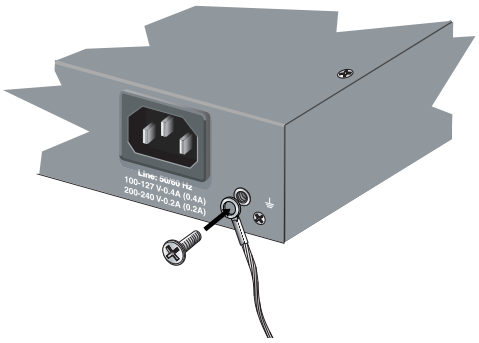

Figure 18. Grounding the ProCurve Secure Router

Grounding Requirements Statement

A supplementary equipment grounding conductor shall be installed between the product or system and ground that is in addition to the equipment grounding conductor in the power supply cord. The supplementary equipment grounding conductor shall not be smaller in size than the ungrounded branch-circuit supply conductors. The supplementary equipment grounding conductor shall be connected to the product at the terminal provided, and shall be connected to ground in a manner that will retain the ground connection when the product is unplugged from the receptacle. The connection to ground of the supplementary equipment grounding conductor shall be in compliance with the rules for terminating bonding jumpers at Part K or Article 250 of the National Electrical Code, ANSI/NFPA 70. Termination of the supplementary equipment grounding conductor is permitted to be made to building steel, to a metal electrical raceway system, or to any grounded item that is permanently and reliably connected to the electrical service equipment ground.

The supplemental grounding conductor shall be connected to the equipment using a number 8 ring terminal and should be fastened to the grounding terminal provided on the rear panel of the equipment. The ring terminal should be installed using the appropriate crimping tool (AMP P/N 59250 T-EAD crimping tool or equivalent).

Installing Interface and Backup Modules

The backup modules plug on to the interface modules. The interface modules are then installed in the front panel option module slot. The following tables list the installation steps. See Figure 19 on page 39.

Caution	*Always remove power from the unit prior to removing or installing a module.* *Improper installation may result in damage to the modules.*

Warning	*For ProCurve Secure Router modules with outside plant connections, ensure that all cables are removed from the module before installing or removing it from the router chassis.*

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Instructions for Installing the Backup Module	
1	Remove power from the unit.
2	If the interface module is already installed in the ProCurve Secure Router chassis, remove all connected cables, release the screws at both edges of the interface module front panel, and slide the module out of the chassis.
3	Carefully align the P1 connector on the interface module with the J1 connector on the backup module. *Using only fingertip pressure* so that neither circuit board bends or flexes, ensure that the connectors are firmly seated. Secure the backup module to the interface module using the screws and standoff posts supplied. (See Figure 19.)
4	Slide the interface module with the backup module attached into the ProCurve Secure Router chassis, continuing with the normal interface module installation.

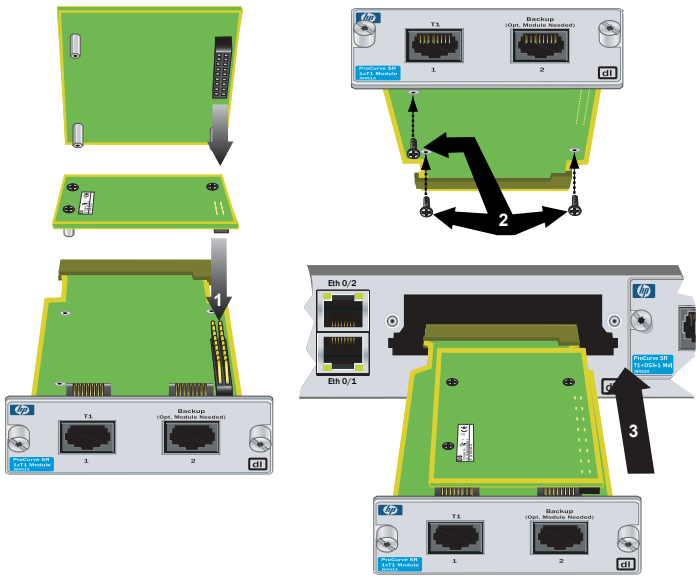

Figure 19. Installing Backup Module and Interface Module

Instructions for Installing the Interface Modules and Wide Modules	
1	Remove power from the unit.
2	Slide the option module into the option slot until the module is firmly seated against the chassis. (See Figure 19.)
3	Secure the screws at both edges of the module.
4	Connect the cables to the associated device(s).
5	Restore power to the unit.

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Installing the Encryption Module

The **Encryption Module** slot supports the 7100/7200 IPSec Module. All software options associated with the card become available once the card is installed. Follow these cautions and steps when installing a module.

Caution *Always remove power from the unit prior to removing or installing a module.*

Improper installation may result in damage to the modules.

Instructions for Installing the Encryption Module	
1	Remove power from the unit.
2	Remove the blank cover plate from the Encryption Module slot.
3	Slide the module into the Encryption Module slot until the module is firmly seated against the chassis.
4	Secure the screws at both edges of the module.
5	Restore power to the unit.
6	The configuration options for encryption will now be available in the GUI and the SROS CLI.

Installing a CompactFlash® Card

The **Compact Flash** slot supports any Type 1 CompactFlash® card (16 MB to 1 GB). Follow these instructions when installing the card.

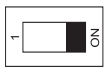
Note *The CompactFlash® card is hot-swappable and can be inserted or removed while power is applied to the unit.*

Instructions for Installing a CompactFlash® Card	
1	Slide the module into the **Compact Flash** slot until the card is firmly seated against the chassis.
2	The CompactFlash® options will now be available in the GUI and the SROS CLI.

T1/E1 Mode Dip-Switch

The ProCurve Secure Router dl 8x T1/E1 Wide Module is shipped with the T1/E1 mode switch (located on the circuit board) set to T1 (in the **1** position). If you require E1 functionality, use your thumbnail to slide the switch to the **ON** position (as shown in the figure below).

Switch Set to T1 Mode



Switch Set to E1 Mode

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Supplying Power to the Unit

After installing the base unit and any option modules, the ProCurve Secure Router is ready to be powered-up. To power the unit, ensure that the unit is properly connected to an appropriate power source (see the sections below).

The ProCurve Secure Router comes equipped with an auto-ranging power supply rated as follows:

- ProCurve Secure Router 7102dl: 100 to 127 VAC, 0.4 A/200 to 240 VAC, 0.2 A, 50 to 60 Hz
- ProCurve Secure Router 7203dl: 100 to 127 VAC, 0.8 A/200 to 240 VAC, 0.4 A, 50 to 60 Hz

A grounded, three-plug detachable cable is included with the shipment.

Caution *Maximum recommended ambient operating temperature is 50°C (122°F).*

Supplying Redundant Power to the Unit

A redundant power supply (RPS) is only available with the ProCurve Secure Router 7203dl. Follow these instructions when connecting the RPS.

Instructions for Connecting the RPS	
1	Remove the blank cover plate from the RPS slot on the back of the ProCurve Secure Router 7203dl.
2	Plug the RPS power cable (with the HP logo on the connector facing up) into this slot. (The RPS power cable comes attached to the HP 600 RPS/EPS. The cable is 1.25 meters [4.1 feet] long.) For more information about connecting the RPS, refer to the *ProCurve 600 Redundant and External Power Supply Installation and Getting Started Guide*.
3	Secure the screws.

Your ProCurve Secure Router is now ready to be configured and connected to the network. For more information on configuring a specific application, refer to the quick configuration documents provided on your *ProCurve SROS Documentation* CD. For details on the CLI, refer to the *SROS Command Line Interface Reference Guide* (also included on your CD).

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APPENDIX A. CONNECTOR PIN DEFINITIONS

The following tables provide the pin assignments for the base unit, interface modules, and backup modules.

Base Unit Pinouts

Table A-1. CONSOLE Port (DTE) Pinouts

Pin	Name	Description
1	—	Unused
2	RD	Receive Data (input)
3	TD	Transmit Data (output)
4	DTR	Data Terminal Ready (output)
5	SG	Signal Ground
6	DSR	Data Set Ready (input)
7	RTS	Request to Send (output)
8	CTS	Clear to Send
9	—	Unused

Note *Direct connection to an external modem requires a straight-through cable.*

Table A-2. 10/100BaseT Ethernet Port Pinouts

Pin	Name	Description
1	TX1	Transmit Positive
2	TX2	Transmit Negative
3	RX1	Receive Positive
4, 5	—	Unused
6	RX2	Receive Negative
7, 8	—	Unused

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Interface Module and Wide Module Pinouts

Table A-3. T1 Connector Pinouts

Pin	Name	Description
1	R1	Receive data from the network
2	T1	Receive data from the network
3	—	Unused
4	R	Transmit data toward the network
5	T	Transmit data toward the network
6-8	—	Unused

Table A-4. E1 Connector Pinouts

Pin	Name	Description
1	R1	Receive data from the network
2	T1	Receive data from the network
3	—	Unused
4	R	Transmit data toward the network
5	T	Transmit data toward the network
6-8	—	Unused

Table A-5. DSX-1 Connector Pinouts

Pin	Name	Description
1	R	Transmit data toward the DTE
2	T	Transmit data toward the DTE
3	—	Unused
4	R1	Receive data from the DTE
5	T1	Receive data from the DTE
6-8	—	Unused

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Table A-6. G.703 Connector Pinouts

Pin	Name	Description
1	R	Transmit data toward the DTE
2	T	Transmit data toward the DTE
3	—	Unused
4	R1	Receive data from the DTE
5	T1	Receive data from the DTE
6-8	—	Unused

Table A-7. 1xSerial Interface and 8xSerial Wide Module Connector Pinouts

Serial Pin	V.35 Pin	X.21 Pin	Description
1	P	2	Transmit data A (TD_A)
2	U	N/A	External transmit clock (ETC_A)
3	Y	N/A	Transmit clock A (TCLK_A)
4	V	6	Receive clock A (RCLK_A)
5	R	4	Receive data A (RD_A)
6	F	N/A	Data carrier detect A (DCD_A)
7	H	N/A	Data transmit ready A (DTR_A)
8	C	3	Request to send A (RTS_A)
9	N/A	10	Request to send B (RTS_B) *V.11 only*
10	N/A	12	Clear to send B (CTS_B) *V.11 only*
11	D	5	Clear to send A (CTS_A)
12	E	N/A	Data set ready A (DSR_A)
13	K	N/A	Test mode A (TM_A)
14	S	9	Transmit data B (TD_B)
15	W	N/A	External transmit clock B (ETC_B)
16	AA	N/A	Transmit clock B (TCLK_B)
17	X	13	Receive clock B (RCLK_B)
18	T	11	Receive data B (RD_B)
19-25	N/A	N/A	Unused
26	B	8	Ground (GND)

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Table A-8. 1xADSL2+ Annex A Interface Module Connector Pinouts

Pin	Name	Description
1, 2	—	Unused
3	R	ADSL Ring
4	T	ADSL Tip
5, 6	—	Unused

Table A-9. 1xADSL2+ Annex B Interface Module Connector Pinouts

Pin	Name	Description
1, 2	—	Unused
3	R	ADSL Ring
4	T	ADSL Tip
5, 6	—	Unused

Table A-10. 2xISDN BRI S/T Interface Module Connector Pinouts

Pin	Name	Description
1, 2	—	Unused
3	R1	Network – Receive (Ring 1)
4	R	Network – Transmit (Ring)
5	T	Network – Transmit (Tip)
6	T1	Network – Receive (Tip 1)
7, 8	—	Unused

Table A-11. 2xISDN BRI U Interface Module Connector Pinouts

Pin	Name	Description
1-3	—	Unused
4	R	Network – Ring
5	T	Network – Tip
6-8	—	Unused

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Backup Connectors

Table A-12 describes the backup connector pinouts for the Analog Modem Backup Module and the ISDN BRI U Backup Module.

Note *An optional backup module is required for backup applications.*

Table A-12. Analog Modem and ISDN BRI U Backup Modules Connector Pinouts

Pin	Name	Description
1-3	—	Unused
4	R	Network – Ring
5	T	Network – Tip
6-8	—	Unused

Table A-13 describes the backup connector pinouts for the ISDN BRI S/T Backup Module.

Table A-13. ISDN BRI S/T Backup Module Connector Pinouts

Pin	Name	Description
1, 2	—	Unused
3	R	Network – Receive
4	T	Network – Transmit
5	T	Network – Transmit
6	R	Network – Receive
7, 8	—	Unused

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APPENDIX B. SAFETY AND REGULATORY INFORMATION

ESD Precautions

Static electricity can severely damage the electronic components on the modules. When handling and installing the modules in your switch, follow these procedures to avoid damage from static electricity:

1. Handle the module by its bulkhead or edges and avoid touching the components and the circuitry on the board.
2. When installing the module, equalize any static charge difference between your body and the router by wearing a grounding wrist strap and attaching it to the router's metal body, or by frequently touching the router's metal body.

Safety Information (English)

Note	*Notes provide important information.*

Caution	*Cautions appear before procedures which, if not observed, could result in loss of data or damage to equipment.*

Warning	*Warning messages alert the reader to a specific procedure or practice which, if not followed correctly, could cause personal injury or catastrophic loss of data or equipment.*

Do not proceed beyond a WARNING or CAUTION notice until you have understood the hazardous conditions and have taken appropriate steps.

Safety Instructions

When using this equipment, please follow these basic safety precautions to reduce the risk of fire, electrical shock, or personal injury:

1. Do not use this product near water, such as a wash bowl, sink, or in a wet basement.
2. Avoid touching this product during an electrical storm. There is a remote risk of shock from lightning.
3. Use only the power cord indicated in the manual.
4. The socket-outlet shall be installed near the equipment and shall be easily accessible.

Warning	*Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

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Grounding

This product is a Safety Class I compliant product and has a protective earthing terminal. There must be an uninterruptible safety earth ground from the main power source to the product's power cord or supplied power cord set. Whenever it is likely that the protection has been impaired, disconnect the power cord until the ground has been restored.

For LAN cable grounding:

- If your LAN covers an area served by more than one power distribution system, be sure their safety grounds are securely interconnected.
- LAN cables may occasionally be subject to hazardous transient voltages (such as lightning or disturbances in the electrical utilities power grid). Handle exposed metal components of the network with caution.

Servicing

There are no user-serviceable parts inside this product. Any servicing, adjustment, maintenance, or repair must be performed only by service trained personnel.

This product does not have a power switch; it is powered on when the power cord is plugged in to an AC power source.

Accessories

Regulatory information for accessories can be found in the installation instructions included with them.

Regulatory Model Identification Number

For regulatory identification purposes, this product has been assigned a Regulatory Model Number (RMN). The RMN for your product is RSVLC-0407. The RMN should not be confused with the marketing name (ProCurve Secure Router) or the Product Number (J8752A or J8753A).

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Conserver ces instructions de sécurité

Tout changement ou modification de cet appareil non approuve par l'entité responsable de la conformité engage l'entière responsabilité de l'utilisateur sur les risques encourus.

Informations concernant la sécurité (French)

Symbole de référence à la documentation. Si le produit est marqué de ce symbole, reportez-vous à la documentation du produit afin d'obtenir des informations plus détaillées.

Warning	*Indique un danger susceptible d'entraîner des dommages corporels ou la mort.*
Caution	*Indique un danger susceptible de causer des dommages à l'équipement.*
Note	*Indique des informations plus détaillées.*

Instruction de sécurité

Durant l'utilisation de cet équipement, suivre les consignes de sécurité élémentaires afin de minimiser le risque d'incendie, d'électrocution ou de blessures infligées aux personnes:

1. N'utilisez pas le produit à proximité de l'eau, par exemple, près d'un bac de lavage, d'un évier ou dans un sous-sol humide.
2. Evitez de toucher ce produit durant un orage. Il peut y avoir un risque de choc électrique cause par l'orage.
3. Utilisez seulement le cordon d'alimentation spécifie dans le manuel.
4. Placez l'équipement près d'une prise électrique facilement accessible.

Mise à la terre

Cet appareil est un produit de classe I et possède une borne de mise à la terre. La source d'alimentation principale doit être munie d'une prise de terre de sécurité installée aux bornes du câblage d'entrée, sur le cordon d'alimentation ou le cordon de raccordement fourni avec le produit.

Lorsque cette protection semble avoir été endommagée, débrancher le cordon d'alimentation jusqu'à ce que la mise à la terre ait été réparée.

Mise à la terre du câble de réseau local (LAN):

- Si votre LAN s'étend sur une zone desservie par plus d'un système de distribution de puissance, assurez-vous que les prises de terre de sécurité soient convenablement interconnectées.
- Les câbles LAN peuvent occasionnellement être soumis à des surtensions transitoires dangereuses (telles que la foudre ou des perturbations dans le réseau d'alimentation public). Manipulez les composants métalliques du réseau avec précautions.

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Reparation

Aucune pièce contenue à l'intérieur de ce produit ne peut être réparée par l'utilisateur. Tout dépannage, réglage, entretien ou réparation devra être confié exclusivement à un personnel qualifié. Cet appareil ne comporte pas de commutateur principal ; la mise sous tension est effectuée par branchement du cordon d'alimentation.

Accessoires

Les informations réglementaires des accessoires sont fournies avec les instructions d'installation des accessoires.

Numéro de modèle réglementaire:

Un numéro de modèle réglementaire HP (RMN: Regulatory Model Number) est affecte au produit a des fins d'identification et de certificat de conformité aux diverses réglementations. Le modèle réglementaire HP de ce produit est RSVLC-0407.

Ne confondez pas le numéro de modèle réglementaire (RMN) avec l'appellation commerciale (HP Procurve Secure Router) ou avec la reference ou numéro de produit (J8752A ou J8753A).

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Hinweise zur Sicherheit (German)

Symbol für Dokumentationsverweis. Wenn das Produkt mit diesem Symbol markiert ist, schlagen Sie bitte in der Produktdokumentation nach, um mehr Informationen über das Produkt zu erhalten.

Warning	*Das Wort WARNING in der Dokumentation symbolisiert eine Gefahr, die Verletzungen oder sogar Todesfälle verursachen kann.*

Caution	*Das Wort CAUTION in der Dokumentation symbolisiert eine Gefahr, die das Gerät beschädigen kann.*

Anweisungen zur Sicherheit

Folgen Sie bei der Benutzung des Gerätes bitte den grundsätzlichen Sicherheitsvorkehrungen um Gefahren durch Feuer, elektrischem Schlag oder persönlichem Verletzungen zu vermeiden:

1. Benutzen Sie dieses Produkt nicht in der Nähe von Wasser, wie z.B. Wasch- und Spülbecken oder in feuchten Kellern.
2. Vermeiden Sie das Berühren des Produktes während eines Gewitters. Es besteht die Gefahr eines elektrischen Schlages während eines Blitzeinschlages.
3. Benutzen Sie nur das im Handbuch angegebene Netzkabel.
4. Die Netzsteckdose soll leicht zugänglich und nahe beim Gerät angebracht sein.

Erdung des Gerätes

Dies ist ein Gerät der Sicherheitsklasse I und verfügt über einen schützenden Erdungsanschluss. Der sichere Betrieb des Geräts erfordert eine ununterbrochene Verbindung der Schutzerde von der Hauptstromquelle zum Netzkabel und zum Geräteanschluss. Sobald Grund zur Annahme besteht, daß der Schutz beeinträchtigt ist, das Netzkabel aus der Wandsteckdose herausziehen und erst wieder zurückstecken, wenn die Erdungsverbindung wiederhergestellt ist.

Für LAN-Kabelerdung:

- Wenn Ihr LAN ein Gebiet umfasst, das von mehr als einem Stromverteilungssystem beliefert wird, müssen Sie sich vergewissern, dass die Sicherheitserdungen fest untereinander verbunden sind.
- LAN-Kabel können gelegentlich gefährlichen Übergangsspannungen ausgesetzt sein (beispielsweise durch Blitz oder Störungen in dem Starkstromnetz des Elektrizitätswerks). Bei der Handhabung exponierter Metallbestandteile des Netzwerkes Vorsicht walten lassen.

Wartungsarbeiten

Dieses Gerät enthält keine durch den Benutzer zu wartenden Teile. Wartungs-, Anpassungs-, Instandhaltungs- -oder Reparaturarbeiten dürfen nur von geschultem Bedienungspersonal durchgeführt werden.

Dieses Gerät hat keinen Netzschalter; es wird beim Anschließen des Netzkabels eingeschaltet.

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Produktidentifizierung durch “Regulatory Model Number"

Zur Identifizierung dieses Produktes wurde eine eindeutige Nummer, die sogenannte Regulatory Model Number (RMN) vergeben. Die RMN für dieses Produkt ist: RSVLC-0407

Die RMN ist unabhängig vom Produktname (HP ProCurve Secure Router) und von der Produkt-nummer (J8752A oder J8753A) und wird zu regulatorischen Zwecken benutzt.

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Conservare queste importanti istruzioni sulla sicurezza

Cambiamenti o modifiche a questa unità non espessamente approvata dalla parte responsabile per la conformità può invalidare l'autorità dell'utente ad operare con l'apparecchio

Informationi sulla sicurezza (Italian)

Se il prodotto è contrassegnato da questo simbolo, si raccomanda di fare riferimento alla documentazione del prodotto per ulteriori informazioni.

I seguenti simboli sono usati nella documentazione del prodotto:

Warning	*Indica un pericolo che può causare lesioni o morte.*
Caution	*Indica un pericolo che può danneggiare le attrezzature.*
Note	*Indica informazioni più dettagliate.*

Instruzioni di sicurezza

Nell'operare con questa apparecchiatura, si prega di seguire le seguenti misure di sicurezza di base per ridurre il rischio di scossa elettrica, di incendio, o di ferita personale:

1. Non usare questo prodotto vicino ad acqua od oggetti che contengono acqua, quale un contenitore per pulizie, un lavandino, o in uno scantinato bagnato.
2. Astenersi dal toccare questo prodotto durante un temporale o una tempesta elettrica. C'è un rischio sebbene limitato di scossa elettrica dovuto ai fulmini e le cariche elettrostatiche.
3. Usare solo i cavi di alimentazione indicati nel manuale.
4. Assicurarsi che la presa di corrente sia facilmente acessibile e sia installata nelle vicinanze del prodotto.

Messa a terra

Questo prodotto è omologato alla classe di sicurezza "I" ed ha un terminale protettivo di collegamento a terra. Dev'essere installato con un collegamento a terra di sicurezza, non interrompibile che vada dalla fonte d'alimentazione principale ai terminali d'entrata, al cavo d'alimentazione oppure al set d'alimentazione fornito con il prodotto. Ogniqualvolta vi sia un possibile danneggiamento della protezione, disinserite il cavo d'alimentazione fino a quando il collegaento a terra non sia stato ripristinato.

Per la messa a terra dei cavi LAN:

- se la vostra LAN copre un'area servita da più di un sistema di distribuzione elettrica, accertatevi che i collegamenti a terra di sicurezza siano ben collegati fra loro;
- i cavi LAN possono occasionalmente essere soggetti a pericolose tensioni transitorie (ad esempio, provocate da lampi o disturbi nella griglia d'alimentazione della società elettrica); siate cauti nel toccare parti esposte in metallo della rete.

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Assistenza

Nessun componente di questo prodotto può essere riparato dall'utente. Qualsiasi lavoro di riparazione, messa a punto, manutenzione o assistenza va effettuato esclusivamente da personale specializzato.

Questo apparato non possiede un commutatore principale; questo prodotto si mette sotto tensione all'inserimento del cavo d'alimentazione.

Accessori

Ulteriori informationi per gli accessori sono disponibili nelle istruzioni di installazione con essi distribuite.

Regulatory Model Identification Number

Un numero di modello regolamentario (Regulatory Model Number o RMN) è stato assegnato a questo prodotto per identificare il prodotto da un punto di vista di coniformità alle norme, le regolamentazioni e legislazioni tecniche.

Il RMN per questo prodotto è RSVLC-0407. Il numero di modello regolamentario non deve essere confuso con il nome di commercializzazione del prodotto (ProCurve Secure Router) o il numero del modello del prodotto (J8752A or J8753A).

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Conservar estas Instrucciones de seguridad Importantes

Cambios o modificaciones a esta unidad no claramente afirmada por el partido responsable de conformidad implica la entera responsabilidad del usuario sobre los riesgos incurridos.

Consideraciones sobre la seguridad (Spanish)

Si el producto está marcado de este símbolo, consultar la documentación del producto a fin de obtener mayor información sobre el producto.

Los símbolos siguientes se utilizan en la documentación del producto:

Warning	*Señala un riesgo que podría resultar en lesiones o la muerte.*
Caution	*Señala un riesgo que podría resultar en averías al equipo.*
Note	*Señala información adicional útil.*

Instrucciones de seguridad

Al usar este equipo, siga por favor estas medidas de seguridad básicas para reducir el riesgo del fuego, del choque eléctrico, o de los daños corporales:

1. No utilice este producto cerca del agua.
2. Evite de tocar este producto durante una tormenta eléctrica. Hay un riesgo alejado del choque del relámpago.
3. Utilice solamente el cable eléctrico indicado en el manual.
4. El zócalo-enchufe debe ser fácilmente accesible y se debe instalar cerca del equipo.

Puesta a tierra

Este aparato se enmarca dentro de la clase I de seguridad y se encuentra protegido por una borna de puesta a tierra. Es preciso que exista una puesta a tierra continua desde la toma de alimentación eléctrica hasta las bornas de los cables de entrada del aparato, el cable de alimentación o el juego de cable de alimentación suministrado. Si existe la probabilidad de que la protección a tierra haya sufrido desperfectos, desenchufar el cable de alimentación hasta haberse subsanado el problema.

Puesta a tierra del cable de la red local (LAN):

- Si la LAN abarca un área cuyo suministro eléctrico proviene de más de una red de distribución de electricidad, cerciorarse de que las puestas a tierra estén conectadas entre sí de modo seguro.
- Es posible que los cables de la LAN se vean sometidos de vez en cuando a voltajes momentáneos que entrañen peligro (rayos o alteraciones en la red de energía eléctrica). Manejar con precaución los componentes de metal de la LAN que estén al descubierto.

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Mantenimiento

Este aparato no contiene pieza alguna susceptible de reparación por parte del usuario. Todas las reparaciones, ajustes o servicio de mantenimiento debe realizarlos solamente el técnico.

Este producto no tiene interruptor de potencia; se activa cuando se enchufa el cable de alimentación.

Accesorios

La información reguladora para los accesorios se puede encontrar en las instrucciones de instalación incluidas con ellas.

Regulatory Model Identification Number

Para los propósitos reguladores de la identificación, este producto se ha asignado un Regulatory Model Number (RMN).

El RMN para su producto es: RSVLC-0407. El RMN no se debe confundir con el nombre de la comercialización (ProCurve Secure Router) o el número del modelo del producto (J8752A o J8753A).

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Safety Information (Japan)

安全性の考慮

安全記号

WARNING　マニュアル中の「WARNING」は人身事故の原因となる危険を示します。

CAUTION　マニュアル中の「CAUTION」は装置破損の原因となる危険を示します。

「WARNING」や「CAUTION」の項は飛ばさないで必ずお読みください。危険性に関する記載事項をよく読み、正しい手順に従った上で次の事項に進んでください。

これは安全性クラスIの製品で保護用接地端子を備えています。主電源から製品の入力配線端子、電源コード、または添付の電源コード・セットまでの間、切れ目のない安全接地が存在することが必要です。もしこの保護回路が損なわれたことが推測されるときは、接地が修復されるまで電源コードを外しておいてください。

LAN ケーブルの接地に関して:

- もし貴社の LAN が複数の配電システムにより電力を受けている領域をカバーしている場合には、それらのシステムの安全接地が確実に相互に結合されていることを確認してください。
- LAN ケーブルは時として危険な過度電圧（例えば雷や、配電設備の電力網での障害）にさらされることがあります。露出した金属部分の取扱いには十分な注意をはらってください。

本製品の内部にはユーザーが修理できる部品はありません。サービス、調整、保守および修理はサービス訓練を受けた専門家におまかせください。

本製品には電源スイッチがありません。電源コードを接続したとき電源入となります。

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Safety Information (China)

HP网络产品使用安全手册

使用须知

欢迎使用惠普网络产品，为了您及仪器的安全，请您务必注意如下事项：

1. 仪器要和地线相接，要使用有正确接地插头的电源线，使用中国国家规定的 220V 电源。
2. 避免高温和尘土多的地方，否则易引起仪器内部部件的损坏。
3. 避免接近高温，避免接近直接热源，如直射太阳光、暖气等其它发热体。
4. 不要有异物或液体落入机内，以免部件短路。
5. 不要将磁体放置于仪器附近。

警告

为防止火灾或触电事故，请不要将该机放置于淋雨或潮湿处。

如果您按照以上步骤操作时遇到了困难，或想了解其它产品性能，请在以下网页上寻找相关信息：**http://www.hp.com.cn**

或联系我们

中国惠普有限公司
地址：北京建国路112号中国惠普大厦
电话： **010-65643888**

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FCC Radio Frequency Interference Statement for United States

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense. The end user of this product should be aware that any changes or modifications made to this equipment without the approval of Hewlett-Packard could result in the product not meeting the Class A limits, in which case the FCC could void the user's authority to operate the equipment.

Hewlett-Packard's device certification tests were conducted with HP computer systems and HP shielded cables, such as those you received with your product. Changes or modifications not expressly approved by Hewlett-Packard could void the user's authority to operate the equipment. Cables used with this device must be properly shielded to comply with the requirements of the FCC.

For information on electromagnetic compatibility, see the *Electromagnetic Compatibility (EMC) Table* on page 62.

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Electromagnetic Compatibility (EMC) Table

Module Part Number	Module Name	ProCurve Secure Router
J8451A	1xT1 Interface	FCC Part 15, Class A EN 55022 Class A
J8452A	1xT1 + DSX-1 Interface	FCC Part 15, Class A EN 55022 Class A
J8453A J8454A J8456A	2xT1 Interface 1xE1 Interface 2xE1 Interface	FCC Part 15, Class A EN 55022 Class A EN 55024 EN 61000-3-2 EN 61000-3-3
J8455A	1xE1 + G.703 Interface	FCC Part 15, Class A EN 55022 Class A EN 55024 EN 61000-3-2 EN 61000-3-3
J8457A	2xISDN BRI S/T Interface	FCC Part 15, Class A EN 55022 Class A EN 61000-3-2 EN61000-3-3
J8458A	1xSerial Interface	FCC Part 15, Class A EN 55022 Class A EN 55024 EN 61000-3-2 EN 61000-3-3
J8459A	1xADSL2+ Annex A Interface	FCC Part 15, Class A EN 55022 Class A EN 55024 EN 61000-3-2 EN 61000-3-3
J8759A	1xADSL2+ Annex B Interface	FCC Part 15, Class A EN 55022 Class A EN 55024 EN 61000-3-2 EN 61000-3-3
J8460A J8461A	ISDN BRI U Backup ISDN BRI S/T Backup	FCC Part 15, Class A EN 55022 Class A EN 61000-3-2 EN 61000-3-3
J8462A	Analog Modem Backup	FCC Part 15, Class A EN 55022 Class A EN 61000-3-2 EN 61000-3-3
J8463A	8xT1/E1 Wide	FCC Part 15, Class A EN 55022 Class A EN 55024 EN 61000-3-2 EN 61000-3-3
J8471A	7100/7200 IPSec	FCC Part 15, Class A EN 55022 Class A EN 55024 EN 61000-3-2 EN 61000-3-3

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Module Part Number	Module Name	ProCurve Secure Router
J9010A	2xISDN BRI U Interface	FCC Part 15, Class A EN 55022 Class A EN 61000-3-2 EN 61000-3-3
J9011A	8xSerial Wide	FCC Part 15, Class A EN 55022 Class A EN 55024 EN 61000-3-2 EN 61000-3-3

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Industry Canada Compliance Information

Notice: The Industry Canada label applied to the product (identified by the Industry Canada logo or the "IC:" in front of the certification/registration number) signifies that the Industry Canada technical specifications were met.

Notice: The Ringer Equivalence Number (REN) for this terminal equipment is supplied in the documentation or on the product labeling/markings. The REN assigned to each terminal device indicates the maximum number of terminals that can be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the RENs of all the devices should not exceed five (5).

Canadian Emissions Requirements

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of the Department of Communications.

Cet appareil numérique respecte les limites de bruits radioelectriques applicables aux appareils numériques de Class A prescrites dans la norme sur le materiel brouilleur: "Appareils Numériques," NMB-003 edictee par le ministre des Communications.

Notice for European Union

This is a Class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures. This product has been tested in accordance to, and complies with, the Low Voltage Directive (73/23/EEC) and EMC Directive (89/336/EEC). The product has been marked with the CE Mark to illustrate its compliance.

Notice for France

DECLARATION D'INSTALLATION ET DE MISE EN EXPLOITATION d'un matériel de traitement de l'information (ATI), classé A en fonction des niveaux de perturbations radioélectriques émis, définis dans la norme européenne EN 55022 concernant la Compatibilité Electromagnétique.

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Notice for Japan

EMC

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

Harmonics

高調波ガイドライン適合品

Japanese Power Cord

製品には、同梱された電源コードをお使い下さい。
同梱された電源コードは、他の製品では使用出来ません。

Please use the attached power cord.
The attached power cord is not allowed to be used with other products.

Notice for Korea

A급 기기 (업무용 정보통신기기)

이 기기는 업무용으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이 점을 주의하시기 바라며, 만약 잘못판매 또는 구입하였을 때에는 가정용으로 교환하시기 바랍니다.

Notice for Germany

Geraeuschemission LwA=60 dB am fiktiven Arbeitsplatz nach DIN 45635 T.19 and ISO 7779:1999

Noise Emission LwA=60 dB at virtual workspace according to DIN 45635 T.19 and ISO 7779:1999

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FCC-Required Information

FCC regulations require that the following information be provided in this manual:

1. This equipment complies with Part 68 of FCC rules and requirements adopted by ACTA. Each registered interface has a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, provide this information to the telephone company.
2. If this equipment causes harm to the telephone network, the telephone company may temporarily discontinue service. If possible, advance notification is given; otherwise, notification is given as soon as possible. The telephone company will advise the customer of the right to file a complaint with the FCC.
3. The telephone company may make changes in its facilities, equipment, operations, or procedures that could effect the proper operation of this equipment. Advance notification and the opportunity to maintain uninterrupted service are given.
4. If experiencing difficulty with this equipment, please contact Hewlett-Packard for repair and warranty information. The telephone company may require this equipment to be disconnected from the network until the problem is corrected or it is certain the equipment is not malfunctioning.
5. This unit contains no user-serviceable parts.
6. This equipment is designed to connect to the telephone network or premises wiring using an FCC-compatible modular jack, which is compliant with Part 68 and requirements adopted by ACTA.
7. The following information may be required when applying to the local telephone company for leased line facilities:

Product	Part Number	Service Type	REN/SOC	FIC	USOC
1xT1 Interface Module	J8451A	1.544 Mbps - SF 1.544 Mbps - SF and B8ZS 1.544 Mbps - ESF 1.544 Mbps - ESF and B8ZS	6.0N	04DU9-BN 04DU9-DN 04DU9-1KN 04DU9-1SN	RJ-48C
1xT1 + DSX-1 Interface Module	J8452A				
2xT1 Interface Module	J8453A				
8xT1/E1 Wide Module	J8463A				
Analog Modem Backup Module	J8462A	Analog Loop Start	0.4A/9.0Y	02LS2	RJ-11C
ISDN BRI U Backup Module	J8460A	Basic Rate ISDN	6.0N	02IS5	RJ-49C
2xISDN BRI U Interface Module	J9010A	Basic Rate ISDN	6.0N	02IS5	RJ-49C
1xADSL2+ Annex A Interface Module	J8459A	ADSL, ADSL2, ADSL2+	0.1A	Metallic	RJ-11C

8. The REN is useful in determining the quantity of devices you may connect to your telephone line and still have all of those devices ring when your number is called. In most areas, the sum of the RENs of all devices should not exceed five. To be certain of the number of devices you may connect to your line as determined by the REN, call your telephone company to determine the maximum REN for your calling area.
9. This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs. Contact your state public utility commission or corporation commission for information.

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Declaration of Conformity (USA)

FCC Supplier's Declaration of Conformity

Place of Issue: Roseville, CA.

Date of Issue: December 6, 2005

Hewlett-Packard located at 8000 Foothills Blvd., Roseville, CA. in the United States of America hereby certifies that the ProCurve Secure Router model RSVLC-0407 when equipped with modules RSVLC-0407A through RSVLC-0407D and RSVLC-0407F bearing labeling identification numbers noted below complies with the Federal Communications Commission's ("FCC") Rules and Regulations 47CFR Part 68, and the technical criteria adopted by the Administrative Council on Terminal Attachments ("ACTA"): TIA-968-A, Telecommunications – Telephone Terminal Equipment -Technical Requirements for Connection of Terminal Equipment to the Telephone Network, January 2003, including all addenda to date.

Model Number	Item	Product Number	Product Registration Labeling Number
RSVLC-0407A	1 x ADSL2+ module	J8459A	US: PNBDL01AJ8459
RSVLC-0407B	Analog Modem backup	J8462A	US: PNBMM04AJ8462
RSVLC-0407C	ISDN BRI U backup	J8460A	US: PNBDENANJ8460
RSVLC-0407C	Dual ISDN BRI U module	J9010A	US: PNBDENANJ9010
RSVLC-0407D	1 x T1 and 1 x T1 + DSX-1 module	J8451A and J8452A	US: PNBDENANJ8452
RSVLC-0407D	2 x T1 module	J8453A	US: PNBDENANJ8453
RSVLC-0407F	8 x T1/E1 wide module	J8463A	US: PNBDENANJ8463

Michael Avery

PNB Product Regulations Manager

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Declaration of Conformity (European)

DECLARATION OF CONFORMITY
according to ISO/IEC Guide 22 and EN 45014

Supplier's Name:	Hewlett-Packard Company
Supplier's Address:	8000 Foothills Blvd. Roseville, CA. 95747, USA

declares, that the product

Product Name:	ProCurve Secure Routers
Model Numbers:	J8752A & J8753A
Regulatory Model:	RSVLC-0407
Accessories / Modules:	RSVLC-0407A, RSVLC-0407B, RSVLC-0407C, RSVLC-0407E, RSVLC-0407F & RSVLC-0407G

conforms to the following Product Specifications:

Safety:	IEC 60950:1999 / EN 60950:2000
EMC:	CISPR 22:1997 + A2:2002 / EN 55022:1998 + A2:2002 Class A CISPR 24:1997 / EN 55024:1998 +A1:2001 IEC 61000-3-2:2001 / EN 61000-3-2:2000 IEC 61000-3-3:1994 +A1 :2001 / EN 61000-3-3:1995 +A1 :2001
Telecom:	TBR-1, TBR-2, TBR-3, TBR-12, TBR-13, TBR-21 & ITU-T G.992.1

Additional Information:

The product herewith complies with the requirements of the Low Voltage Directive 73/23/EEC, the EMC Directive 89/336/EEC and the R&TTE Directive 99/5/EC, and carries the CE-marking accordingly.

This product is assigned a Regulatory Model Number which stays with the regulatory aspects of the design. The Regulatory Model Number is the main product identifier in the regulatory documentation and test reports, this number should not be confused with the marketing name or the product numbers.

Roseville, 1/18/2005

Michael E. Avery, Regulatory Manager
ProCurve Networks Business Unit

Local contact for regulatory topics only:
Hewlett-Packard GmbH, HQ-TRE, Herrenberger Strasse 140, 71034 Boeblingen, Germany

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Warranty and Customer Service

Warranty and Support information for your product is found in the Software License, Warranty, and Support documentation that ships in the product box. An electronic copy of this document may be found on the Documentation CD included with the product or on the ProCurve Web site at http://www.procurve.com. Click on Technical Support, then, under Additional Support, click on Warranty information and assistance.

Installation and Maintenance Support

ProCurve Networking and HP Services provide a range of service and support options to assist you in the installation and maintenance of your network. For more information, visit http://hp.com/go/procurveservices.

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APPENDIX C. WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) INSTRUCTIONS

Likvidace zařízení soukromými domácími uživateli v Evropské unii

Tento symbol na produktu nebo balení označuje výrobek, který nesmí být vyhozen spolu s ostatním domácím odpadem. Povinností uživatele je předat takto označený odpad na předem určené sběrné místo pro recyklaci elektrických a elektronických zařízení. Okamžité třídění a recyklace odpadu pomůže uchovat přírodní prostředí a zajistí takový způsob recyklace, který ochrání zdraví a životní prostředí člověka. Další informace o možnostech odevzdání odpadu k recyklaci získáte na příslušném obecním nebo městském úřadě, od firmy zabývající se sběrem a svozem odpadu nebo v obchodě, kde jste produkt zakoupili.

Bortskaffelse af affald fra husstande i den Europæiske Union

Hvis produktet eller dets emballage er forsynet med dette symbol, angiver det, at produktet ikke må bortskaffes med andet almindeligt husholdningsaffald. I stedet er det dit ansvar at bortskaffe kasseret udstyr ved at aflevere det på den kommunale genbrugsstation, der forestår genvinding af kasseret elektrisk og elektronisk udstyr. Den centrale modtagelse og genvinding af kasseret udstyr i forbindelse med bortskaffelsen bidrager til bevarelse af naturlige ressourcer og sikrer, at udstyret genvindes på en måde, der beskytter både mennesker og miljø. Yderligere oplysninger om, hvor du kan aflevere kasseret udstyr til genvinding, kan du få hos kommunen, den lokale genbrugsstation eller i den butik, hvor du købte produktet.

Disposal of Waste Equipment by Users in Private Household in the European Union

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Seadmete jäätmete kõrvaldamine eramajapidamistes Euroopa Liidus

See tootel või selle pakendil olev sümbol näitab, et kõnealust toodet ei tohi koos teiste majapidamisjäätmetega kõrvaldada. Teie kohus on oma seadmete jäätmed kõrvaldada, viies need elektri- ja elektroonikaseadmete jäätmete ringlussevõtmiseks selleks ettenähtud kogumispunkti. Seadmete jäätmete eraldi kogumine ja ringlussevõtmine kõrvaldamise ajal aitab kaitsta loodusvarasid ning tagada, et ringlussevõtmine toimub viisil, mis kaitseb inimeste tervist ning keskkonda. Lisateabe saamiseks selle kohta, kuhu oma seadmete jäätmed ringlussevõtmiseks viia, võtke palun ühendust oma kohaliku linnakantselei, majapidamisjäätmete kõrvaldamise teenistuse või kauplusega, kust Te toote ostsite.

Laitteiden hävittäminen kotitalouksissa Euroopan unionin alueella

Jos tuotteessa tai sen pakkauksessa on tämä merkki, tuotetta ei saa hävittää kotitalousjätteiden mukana. Tällöin hävitettävä laite on toimitettava sähkölaitteiden ja elektronisten laitteiden kierrätyspisteeseen. Hävitettävien laitteiden erillinen käsittely ja kierrätys auttavat säästämään luonnonvaroja ja varmistamaan, että laite kierrätetään tavalla, joka estää terveyshaitat ja suojelee luontoa. Lisätietoja paikoista, joihin hävitettävät laitteet voi toimittaa kierrätettäväksi, saa ottamalla yhteyttä jätehuoltoon tai liikkeeseen, josta tuote on ostettu.

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Élimination des appareils mis au rebut par les ménages dans l'Union européenne

Le symbole apposé sur ce produit ou sur son emballage indique que ce produit ne doit pas être jeté avec les déchets ménagers ordinaires. Il est de votre responsabilité de mettre au rebut vos appareils en les déposant dans les centres de collecte publique désignés pour le recyclage des équipements électriques et électroniques. La collecte et le recyclage de vos appareils mis au rebut indépendamment du reste des déchets contribue à la préservation des ressources naturelles et garantit que ces appareils seront recyclés dans le respect de la santé humaine et de l'environnement. Pour obtenir plus d'informations sur les centres de collecte et de recyclage des appareils mis au rebut, veuillez contacter les autorités locales de votre région, les services de collecte des ordures ménagères ou le magasin dans lequel vous avez acheté ce produit.

Entsorgung von Altgeräten aus privaten Haushalten in der EU

Das Symbol auf dem Produkt oder seiner Verpackung weist darauf hin, dass das Produkt nicht über den normalen Hausmüll entsorgt werden darf. Benutzer sind verpflichtet, die Altgeräte an einer Rücknahmestelle für Elektro- und Elektronik-Altgeräte abzugeben. Die getrennte Sammlung und ordnungsgemäße Entsorgung Ihrer Altgeräte trägt zur Erhaltung der natürlichen Ressourcen bei und garantiert eine Wiederverwertung, die die Gesundheit des Menschen und die Umwelt schützt. Informationen dazu, wo Sie Rücknahmestellen für Ihre Altgeräte finden, erhalten Sie bei Ihrer Stadtverwaltung, den örtlichen Müllentsorgungsbetrieben oder im Geschäft, in dem Sie das Gerät erworben haben

Απόρριψη άχρηστου εξοπλισμού από χρήστες σε ιδιωτικά νοικοκυριά στην Ευρωπαϊκή Ένωση

Το σύμβολο αυτό στο προϊόν ή τη συσκευασία του υποδεικνύει ότι το συγκεκριμένο προϊόν δεν πρέπει να διατίθεται μαζί με τα άλλα οικιακά σας απορρίμματα. Αντίθετα, είναι δική σας ευθύνη να απορρίψετε τον άχρηστο εξοπλισμό σας παραδίδοντάς τον σε καθορισμένο σημείο συλλογής για την ανακύκλωση άχρηστου ηλεκτρικού και ηλεκτρονικού εξοπλισμού. Η ξεχωριστή συλλογή και ανακύκλωση του άχρηστου εξοπλισμού σας κατά την απόρριψη θα συμβάλει στη διατήρηση των φυσικών πόρων και θα διασφαλίσει ότι η ανακύκλωση γίνεται με τρόπο που προστατεύει την ανθρώπινη υγεία και το περιβάλλον. Για περισσότερες πληροφορίες σχετικά με το πού μπορείτε να παραδώσετε τον άχρηστο εξοπλισμό σας για ανακύκλωση, επικοινωνήστε με το αρμόδιο τοπικό γραφείο, την τοπική υπηρεσία διάθεσης οικιακών απορριμμάτων ή το κατάστημα όπου αγοράσατε το προϊόν.

Készülékek magánháztartásban történő selejtezése az Európai Unió területén

A készüléken, illetve a készülék csomagolásán látható azonos szimbólum annak jelzésére szolgál, hogy a készülék a selejtezés során az egyéb háztartási hulladéktól eltérő módon kezelendő. A vásárló a hulladékká vált készüléket köteles a kijelölt gyűjtőhelyre szállítani az elektromos és elektronikai készülékek újrahasznosítása céljából. A hulladékká vált készülékek selejtezéskori begyűjtése és újrahasznosítása hozzájárul a természeti erőforrások megőrzéséhez, valamint biztosítja a selejtezett termékek környezetre és emberi egészségre nézve biztonságos feldolgozását.
A begyűjtés pontos helyéről bővebb tájékoztatást a lakhelye szerint illetékes önkormányzattól, az illetékes szemételtakarító vállalattól, illetve a terméket elárusító helyen kaphat.

Smaltimento delle apparecchiature da parte di privati nel territorio dell'Unione Europea

Questo simbolo presente sul prodotto o sulla sua confezione indica che il prodotto non può essere smaltito insieme ai rifiuti domestici. È responsabilità dell'utente smaltire le apparecchiature consegnandole presso un punto di raccolta designato al riciclo e allo smaltimento di apparecchiature elettriche ed elettroniche. La raccolta differenziata e il corretto riciclo delle apparecchiature da smaltire permette di proteggere la salute degli individui e l'ecosistema. Per ulteriori informazioni relative ai punti di raccolta delle apparecchiature, contattare l'ente locale per lo smaltimento dei rifiuti, oppure il negozio presso il quale è stato acquistato il prodotto.

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Nolietotu iekārtu iznīcināšanas noteikumi lietotājiem Eiropas Savienības privātajās mājsaimniecībās

Šāds simbols uz izstrādājuma vai uz tā iesaiņojuma norāda, ka šo izstrādājumu nedrīkst izmest kopā ar citiem sadzīves atkritumiem. Jūs atbildat par to, lai nolietotās iekārtas tiktu nodotas speciāli iekārtotos punktos, kas paredzēti izmantoto elektrisko un elektronisko iekārtu savākšanai otrreizējai pārstrādei. Atsevišķa nolietoto iekārtu savākšana un otrreizējā pārstrāde palīdzēs saglabāt dabas resursus un garantēs, ka šīs iekārtas tiks otrreizēji pārstrādātas tādā veidā, lai pasargātu vidi un cilvēku veselību. Lai uzzinātu, kur nolietotās iekārtas var izmest otrreizējai pārstrādei, jāvēršas savas dzīves vietas pašvaldībā, sadzīves atkritumu savākšanas dienestā vai veikalā, kurā izstrādājums tika nopirkts.

Vartotojų iš privačių namų ūkių įrangos atliekų šalinimas Europos Sąjungoje

Šis simbolis ant gaminio arba jo pakuotės rodo, kad šio gaminio šalinti kartu su kitomis namų ūkio atliekomis negalima. Šalintinas įrangos atliekas privalote pristatyti į specialią surinkimo vietą elektros ir elektroninės įrangos atliekoms perdirbti. Atskirai surenkamos ir perdirbamos šalintinos įrangos atliekos padės saugoti gamtinius išteklius ir užtikrinti, kad jos bus perdirbtos tokiu būdu, kuris nekenkia žmonių sveikatai ir aplinkai. Jeigu norite sužinoti daugiau apie tai, kur galima pristatyti perdirbtinas įrangos atliekas, kreipkitės į savo seniūniją, namų ūkio atliekų šalinimo tarnybą arba parduotuvę, kurioje įsigijote gaminį.

Verwijdering van afgedankte apparatuur door privé-gebruikers in de Europese Unie

Dit symbool op het product of de verpakking geeft aan dat dit product niet mag worden gedeponeerd bij het normale huishoudelijke afval. U bent zelf verantwoordelijk voor het inleveren van uw afgedankte apparatuur bij een inzamelingspunt voor het recyclen van oude elektrische en elektronische apparatuur. Door uw oude apparatuur apart aan te bieden en te recyclen, kunnen natuurlijke bronnen worden behouden en kan het materiaal worden hergebruikt op een manier waarmee de volksgezondheid en het milieu worden beschermd. Neem contact op met uw gemeente, het afvalinzamelingsbedrijf of de winkel waar u het product hebt gekocht voor meer informatie over inzamelingspunten waar u oude apparatuur kunt aanbieden voor recycling.

Pozbywanie się zużytego sprzętu przez użytkowników w prywatnych gospodarstwach domowych w Unii Europejskiej

Ten symbol na produkcie lub jego opakowaniu oznacza, że produktu nie wolno wyrzucać do zwykłych pojemników na śmieci. Obowiązkiem użytkownika jest przekazanie zużytego sprzętu do wyznaczonego punktu zbiórki w celu recyklingu odpadów powstałych ze sprzętu elektrycznego i elektronicznego. Osobna zbiórka oraz recykling zużytego sprzętu pomogą w ochronie zasobów naturalnych i zapewnią ponowne wprowadzenie go do obiegu w sposób chroniący zdrowie człowieka i środowisko. Aby uzyskać więcej informacji o tym, gdzie można przekazać zużyty sprzęt do recyklingu, należy się skontaktować z urzędem miasta, zakładem gospodarki odpadami lub sklepem, w którym zakupiono produkt.

Descarte de Lixo Elétrico na Comunidade Européia

Este símbolo encontrado no produto ou na embalagem indica que o produto não deve ser descartado no lixo doméstico comum. É responsabilidade do cliente descartar o material usado (lixo elétrico), encaminhando-o para um ponto de coleta para reciclagem. A coleta e a reciclagem seletivas desse tipo de lixo ajudarão a conservar as reservas naturais; sendo assim, a reciclagem será feita de uma forma segura, protegendo o ambiente e a saúde das pessoas. Para obter mais informações sobre locais que reciclam esse tipo de material, entre em contato com o escritório da HP em sua cidade, com o serviço de coleta de lixo ou com a loja em que o produto foi adquirido.

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Likvidácia vyradených zariadení v domácnostiach v Európskej únii
Symbol na výrobku alebo jeho balení označuje, že daný výrobok sa nesmie likvidovať s domovým odpadom. Povinnosťou spotrebiteľa je odovzdať vyradené zariadenie v zbernom mieste, ktoré je určené na recykláciu vyradených elektrických a elektronických zariadení. Separovaný zber a recyklácia vyradených zariadení prispieva k ochrane prírodných zdrojov a zabezpečuje, že recyklácia sa vykonáva spôsobom chrániacim ľudské zdravie a životné prostredie. Informácie o zberných miestach na recykláciu vyradených zariadení vám poskytne miestne zastupiteľstvo, spoločnosť zabezpečujúca odvoz domového odpadu alebo obchod, v ktorom ste si výrobok zakúpili.

Odstranjevanje odslužene opreme uporabnikov v zasebnih gospodinjstvih v Evropski uniji
Ta znak na izdelku ali njegovi embalaži pomeni, da izdelka ne smete odvreči med gospodinjske odpadke. Nasprotno, odsluženo opremo morate predati na zbirališče, pooblaščeno za recikliranje odslužene električne in elektronske opreme. Ločeno zbiranje in recikliranje odslužene opreme prispeva k ohranjanju naravnih virov in zagotavlja recikliranje te opreme na zdravju in okolju neškodljiv način. Za podrobnejše informacije o tem, kam lahko odpeljete odsluženo opremo na recikliranje, se obrnite na pristojni organ, komunalno službo ali trgovino, kjer ste izdelek kupili.

Eliminación de residuos de equipos eléctricos y electrónicos por parte de usuarios particulares en la Unión Europea
Este símbolo en el producto o en su envase indica que no debe eliminarse junto con los desperdicios generales de la casa. Es responsabilidad del usuario eliminar los residuos de este tipo depositándolos en un "punto limpio" para el reciclado de residuos eléctricos y electrónicos. La recogida y el reciclado selectivos de los residuos de aparatos eléctricos en el momento de su eliminación contribuirá a conservar los recursos naturales y a garantizar el reciclado de estos residuos de forma que se proteja el medio ambiente y la salud. Para obtener más información sobre los puntos de recogida de residuos eléctricos y electrónicos para reciclado, póngase en contacto con su ayuntamiento, con el servicio de eliminación de residuos domésticos o con el establecimiento en el que adquirió el producto.

Bortskaffande av avfallsprodukter från användare i privathushåll inom Europeiska Unionen
Om den här symbolen visas på produkten eller förpackningen betyder det att produkten inte får slängas på samma ställe som hushållssopor. I stället är det ditt ansvar att bortskaffa avfallet genom att överlämna det till ett uppsamlingsställe avsett för återvinning av avfall från elektriska och elektroniska produkter. Separat insamling och återvinning av avfallet hjälper till att spara på våra naturresurser och gör att avfallet återvinns på ett sätt som skyddar människors hälsa och miljön. Kontakta ditt lokala kommunkontor, din närmsta återvinningsstation för hushållsavfall eller affären där du köpte produkten för att få mer information om var du kan lämna ditt avfall för återvinning.

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